REPORT ON CITY OF SPOKANE DRINKING WATER FOR 2008

Reported by
Bill Rickard, Environmental Analyst
1 April 2009

The City of Spokane's water is of very high quality. The City runs many different tests at varying intervals to confirm that the City's drinking water meets Washington State and Federal EPA drinking water quality standards. A comprehensive list of the substances the City has tested for is in Appendix II. The City drinking water supply, to date, has consistently met Federal standards. This report summarizes, by contaminant group, the drinking water monitoring conducted during 2008, with historical context. The discussion that follows is meant to provide consumers and other interested parties some insight into what analytical tests have been conducted and, in some cases, substances that have been detected. The State and Federal Maximum Contaminant Level (MCL) information is provided as a risk benchmark.

This report also summarizes the quantity of water the City used in 2008 and documents some indicators to show the progress in meeting the conservation goals adopted by the City in its Water Stewardship Strategic Plan.

English:
This report contains important information about the drinking water supplied by the City of Spokane. Translate it, or speak with someone who understands it well.

Spanish:
Este reporte contiene información importante acerca del agua potable suministrada por la Ciudad de Spokane. Tradúzcalo, o hable con alguien que lo entiende bien. Para ver información adicional, visite al; http://www.epa.gov/safewater/agua.html.

Russian:
В этом отчете содержится важная информация относительно питьевой воды, поставляемой службой города Спокэн. Переведите этот отчет или поговорите с тем, кто его хорошо понимает.

Vietnamese:
Bản phúc trình này chứa đựng những thông tin quan trọng về nước uống được cung cấp bởi City of Spokane. Hãy phiên dịch, hay hỏi thăm người nào hiểu rõ về tài liệu này.

The final pages (appendices) of this report summarize the most recent analytical testing. Appendix III summarizes the testing that was completed during 2008, 2007, and 2006. Appendix III through IX summarizes the analytical results for recent and historical testing. The following narrative and attachments summarize and explain recent results in more detail. **Appendix X and the last two pages of this narrative (General Information) contain information relevant to the annual Consumer Confidence Report. As such, the information may be redundant, relative to the main text of this report.**

All of the City of Spokane's drinking water comes from the Spokane Valley-Rathdrum Prairie Aquifer - designated a sole source aquifer in 1978. The Spokane Aquifer (that portion of the larger aquifer lying within Washington State) and the Spokane River exchange water. While this Aquifer contains a large volume of water, many factors play into the volume of water in the Spokane River, and complicate management of these resources. Some of these factors include, but are not limited to, pumping for irrigation and potable water, hydroelectric dam operations, and the variations of weather and precipitation. The rates and locations of exchange between this Aquifer and the Spokane River have been re-examined as part of the Bi-State Aquifer Study. In January, 2008 the States of Washington and Idaho announced signing a Memorandum of Agreement (http://www.idwr.idaho.gov/hydrologic/projects/svrp/committee.htm) concerning the "*…continued coordination involving the maintenance and improvement of the technical tools developed in a bi-state water study.*". Discussions to agree on how to utilize these technical tools to manage this valuable resource will continue. The results of these studies and agreements will help give the City information it needs to continue to supply high-quality water to the citizens of Spokane.

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Due to the porous nature of the ground surface and the number of potential contaminant sources, the possibility of contaminating the aquifer exists if good housekeeping measures are not followed for all activity over and adjacent to the aquifer. The physical and economic health of our area depends on the quality of our drinking water. In order to safeguard water quality, the City continues its efforts to make available to the community information about, and appropriate disposal mechanisms for, dangerous wastes that are generated in the Aquifer Sensitive Area. The City, in cooperation with other local governments and the Spokane Aquifer Joint Board, continues to work toward strengthening regulations for the storage and use of critical materials to safeguard the local water supply.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by contacting the U.S. Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791, or you can access additional information at EPA websites: www.epa.gov/safewater/dwhealth.html and/or www.epa.gov/safewater/wot/index.html

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Further information concerning the EPA drinking water regulations and children may be accessed at http://www.epa.gov/safewater/kids/kidshealth/index.html (Para ver información adicional, visite al; www.epa.gov/safewater/agua/losninos.html)

The Spokane-Rathdrum Prairie Aquifer slowly flows through two different states and a number of different counties and is the source water for a large number of water purveyors (including the City of Spokane). This water and any contaminants freely move across political boundaries. Many groups and/or private individuals may claim this water to be used for diverse purposes. Some of these competing interests are (but are not limited to) drinking water rights, irrigation, fisheries, hydroelectric power, and industrial processes.

For further information regarding the City of Spokane's drinking water or related issues:

City of Spokane Water Department	509-625-7800	www.spokanewater.org/
City of Spokane-Environmental Programs	509-625-6570	http://www.spokanepublicworks.com/subc5be.html?id=6694
Spokane County - Water Resources	509-477-6024	www.spokanecounty.org/wqmp/
Spokane Regional Health District – Environmental Health Div.	509-324-1560	http://www.srhd.org/services/environment.asp
Washington State Department of Health - Eastern Regional Office (Drinking Water)	509-456-3115	www.doh.wa.gov/ehp/dw/default.htm
Washington State Department of Ecology – Eastern Regional Office	509-329-3400	www.ecy.wa.gov/
USEPA Safe Drinking Water Hotline	1-800-426-4791	www.epa.gov/safewater/hotline/index.html

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To obtain free software to read some of these digital files:
Adobe Acrobat files: www.adobe.com/products/acrobat/readstep2.html
Microsoft Word files: http://www.microsoft.com/downloads/details.aspx?FamilyID=3657ce88-7cfa-457a-9aec-f4f827f20cac&displaylang=en

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QUANTITY - Water for the Future

Our Water.
Our Future.
Our Priority.

As a result of the increasing recognition of the limits to our groundwater resources, the State has encouraged local interests and authorities to come together to manage this resource. The City of Spokane has taken an active role in area-wide partnerships to safeguard the quality and quantity of our water supply. The City of Spokane and all its water customers are challenged to use water resources wisely and responsibly. The City of Spokane Water Stewardship Program was established by resolution of the City Council on May 1, 2006 (Resolution 06-49).

Changes in federal building standards have resulted in water savings nationwide. The City's Building Dept. enforces these standards. The City of Spokane Water Department has taken additional steps to conserve water through education programs, metering water use, reducing the loss of water resulting from leaking pipes, and implementing, in stages, a conservation-oriented rate structure. The Water Use Efficiency Rule requires that municipal water suppliers adopt a plan to make more efficient use of their water. Two of the quantifiable elements are discussed in this section.

GOALS

The City of Spokane adopted the Water Stewardship Strategic Plan on May 1, 2006. This Plan includes Goals for per capita reductions in water use. These goals are for reducing the water consumption during a timeframe through 2017, and are specified for seasonal periods of October through March, April through June, and July through September. The goals for these periods are different as is the per capita water use.

The October through March timeframe is a period of indoor water use typically and is nearest the water use essential for health and safety. Furthermore, a modest, but increasing rate of growth for our community is assumed.

The April through June timeframe is a transitional period of indoor use and increasing outdoor use.

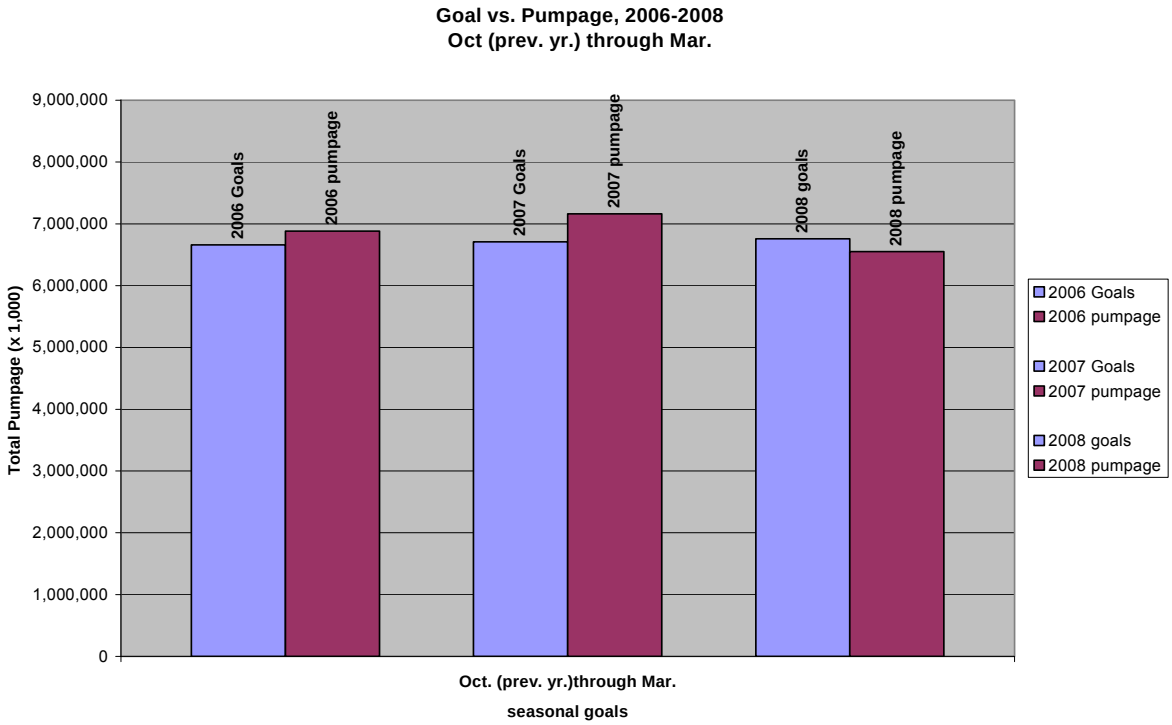
The July through September period is a period of increasing demand for outdoor irrigation. This is also the most critical period for flows in the Spokane River. The goals for this period are the most ambitious.

The detailed source water pumping totals versus the adopted Water Stewardship Goals are in Appendix I. The following table and graphs illustrates this information for 2008;

WATER YEAR	2008 pumpage (1,000 gallons)		
period	Total	Goal	Result
Oct. (prev. yr.)through Mar.	6,551,023	6,760,000	-3.1%
Apr. through Jun.	5,340,335	6,870,000	-22.3%
Jul. through Sept.	9,277,452	8,990,000	3.2%
sum of seasonal totals	21,168,810		

This table shows the difference between the Goal and the Use as a percentage. A positive value equals exceedances of the goal. Total pumpage for these periods for 2001 - 2008 is available in Appendix I.

It is our estimate that the City, while continuing to show improvement, did not achieve its water conservation pumpage goal for 2008, specifically for the timeframe of July – September, 2008. The following graphs demonstrate the total pumpage vs. goals for each season for 2006, 2007, and 2008.



The City did not meet it's goals for October-March during 2006 or 2007. **However, the City met it's goal for October through March, for the first time, in 2008.**

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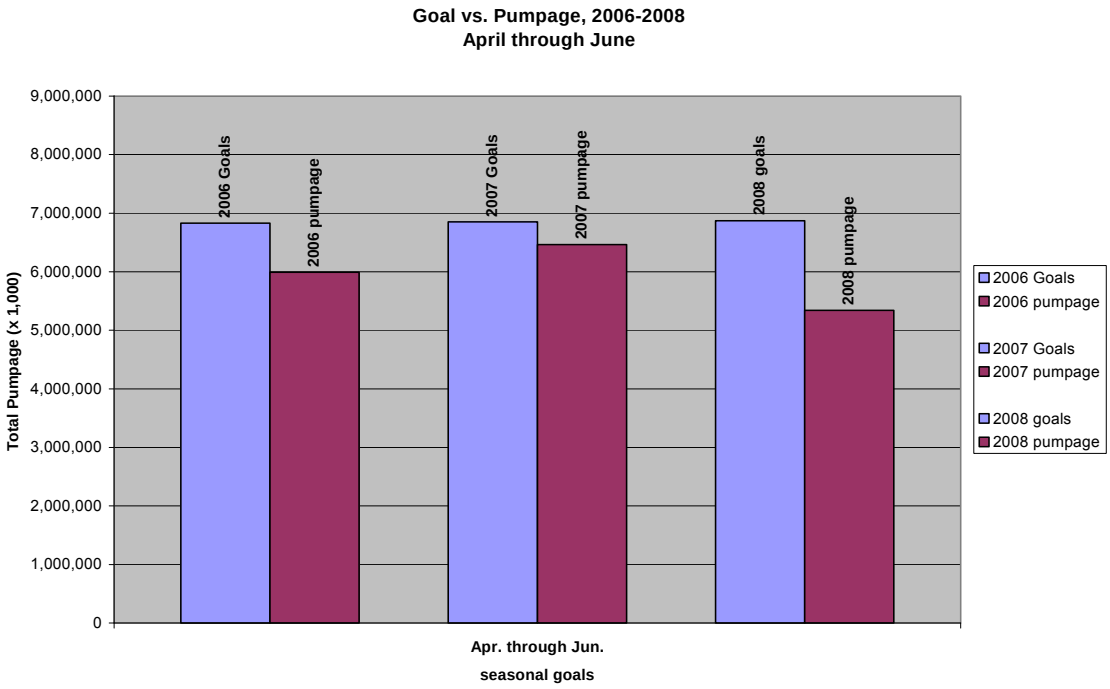
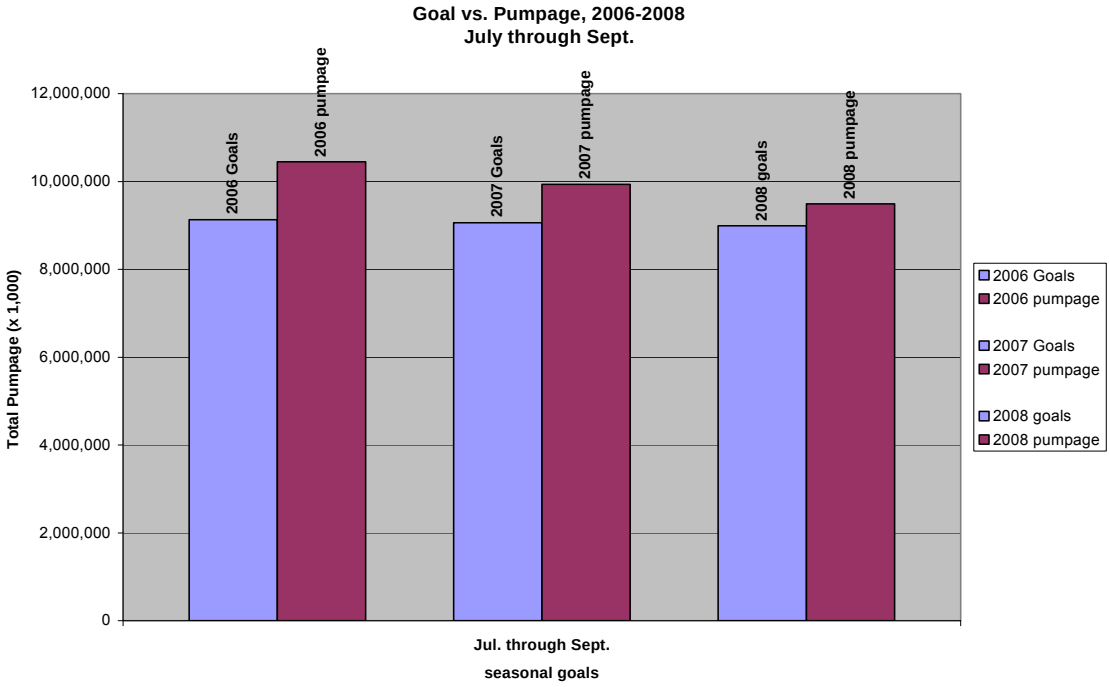


The City met it's goal for April-June for 2006 and 2007. **During 2008, the City continued to meet the goal for April through June for this season.**



To date, the City has not met it's goal for July-September, including 2008. Note that the rate of water use reduction is most ambitious during this season. **Although the City did not met it's goal for July through September in 2008, the graph demonstrates continued improvement.**

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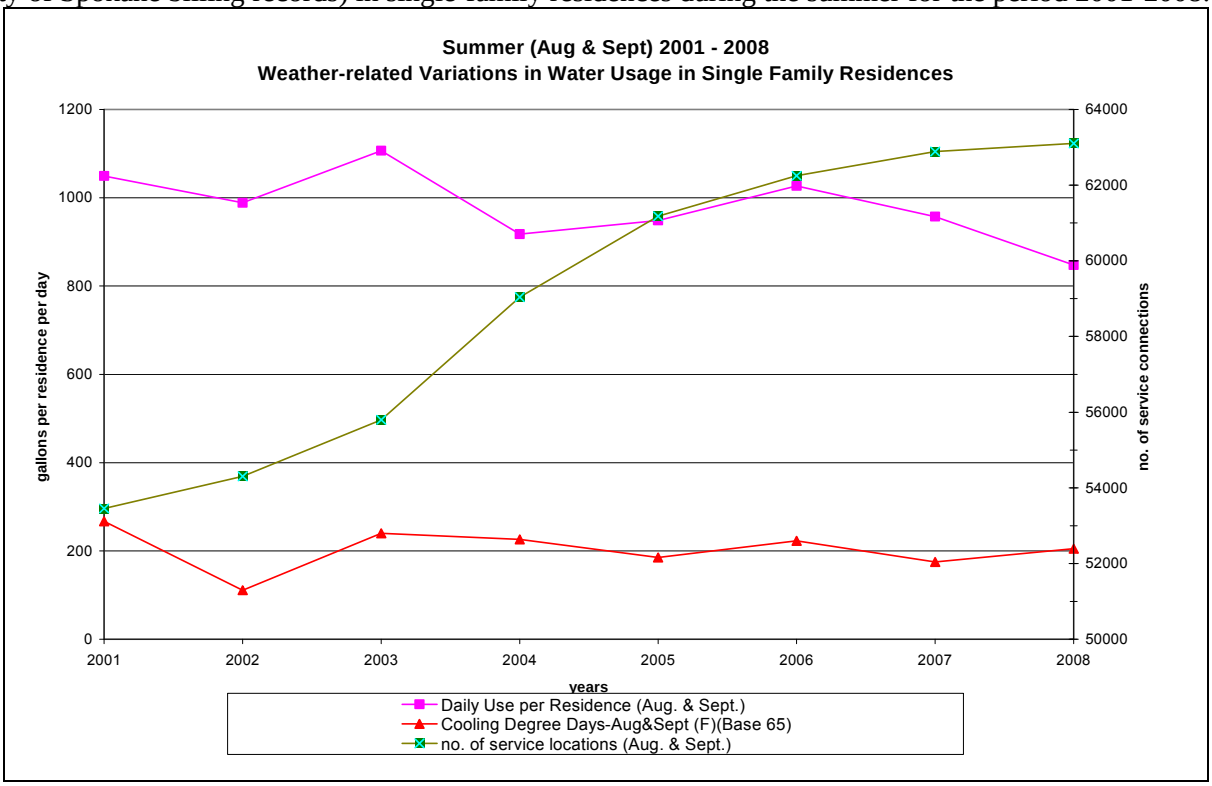
It is important to note that the commitment taken on by the City is based on per capita usage and the actual population served in 2008 is not immediately known. However, an indicator of population would be the number of single family residences served. Following is a table giving number of single family residences over the last eight years. Please note that the number of residences is typically lower in the winter because some local residents go south for the winter, and then such residences are not counted as "connections".

	no. of service locations (Jan. & Feb.)	*no. of service locations (Aug. & Sept.)*
2001	52,327	53,456
2002	53,572	54,304
2003	54,940	55,799
2004	56,442	59,042
2005	57,894	61,178
2006	59,674	62,248
2007	61,068	62,886
2008	61065	63102

The number of single-family residences increased in 2008 by 0.34% (Aug-Sept) over 2007. This modest increase, probably resulting from the economic conditions during 2008, is somewhat less than the 1.28% per capita increase anticipated in the Water Stewardship Strategic Plan.

In addition to total population served seasonal weather variations impact water use. The following graph illustrates daily usage (City of Spokane billing records) in single-family residences during the summer for the period 2001-2008:



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The preceding graph shows that the water usage of single family residences trends with temperature (i.e. cooling degree days). However, it also appears that despite the number of connections increasing steadily over time, there may be a trend of decreasing water use per single-family residence.

The following table shows the daily usage of single family residences during the winter and summer periods:

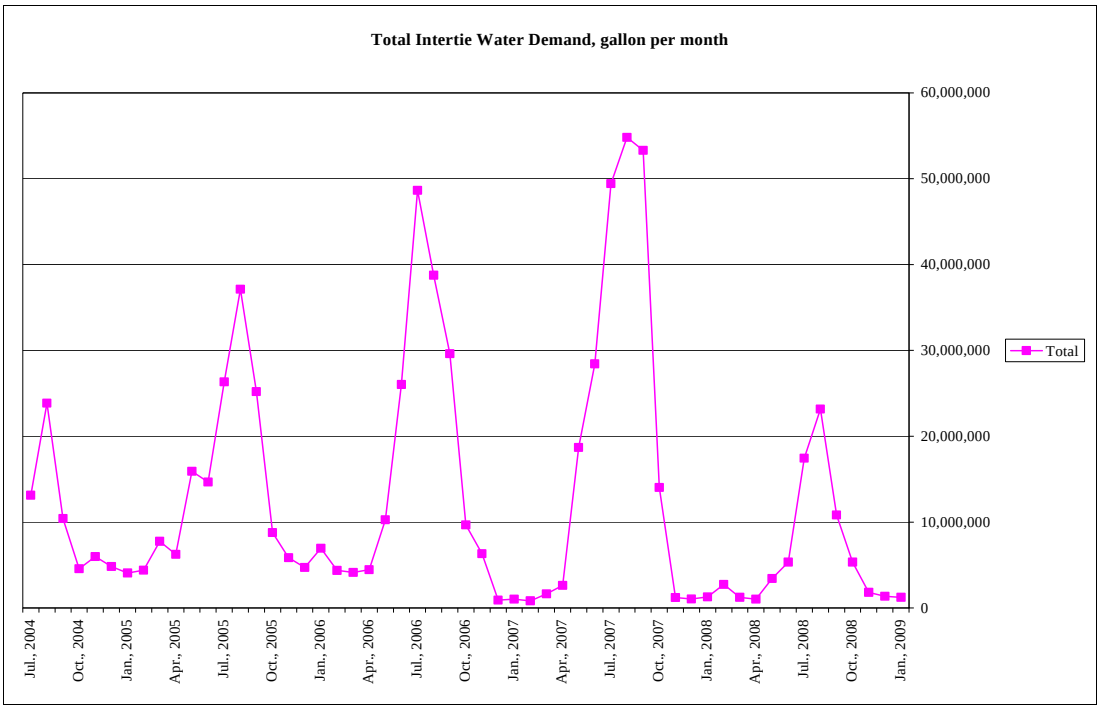
	Single family residence	
	Gallons used per day, January & February	*Gallons used per day August & September*
2001	243	1050
2002	230	988
2003	210	1107
2004	229	918
2005	180	948
2006	208	1027
2007	202	957
2008 *	135	848

* heavy winter weather during Feb. prevented meter reading on the north side. However, usage was comparable on the south side, so northside estimates are fairly accurate.

In addition to the increase in single family residences within our water service area, **there was an unanticipated reduction in demand from water purveyors during 2008**, particularly on the West Plains. Following is a table with the annual total gallons delivered to our wholesale customers;

	Annual Total Intertie Demand, gal.	Percent Increase
2005	161,179,040	
2006	190,312,144	18.1 %
2007	227,270,824	19.4 %
2008	75,063,296	- 67.0 %

This is a graph displaying the total gallons per month wholesaled to water purveyors outside the City's water service area:



The graph shows a decline in demand from outside our water service area. The following table subtracts the intertie demand from the total pumpage to re-assess whether the City met the adopted goals;

WATER YEAR	2008 pumpage (1,000 gallons)				
period	Total	Intertie Demand	Adjusted Total (Total-Intertie Demand)	Goal	Result
Oct. (prev. yr.)through Mar.	6,551,023	21,590	6,529,433	6,760,000	- 3.1 %
Apr. through Jun.	5,340,540	9,795	5,330,745	6,870,000	- 22.3 %
Jul. through Sept.	9,277,452	51,448	9,226,004	8,990,000	3.2 %
sum of seasonal totals	21,168,810				

Adjusting for these changes only incrementally improves the compliance with the adopted goals.

For further information check these two websites: EPA-WaterSense Program (http://www.epa.gov/watersense/) and H2OUSE-Watersaver Home (http://www.h2ouse.net/).
For more information concerning the City of Spokane Water Stewardship Program, go to www.waterstewardship.org .

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DISTRIBUTION SYSTEM LEAKAGE (DSL)

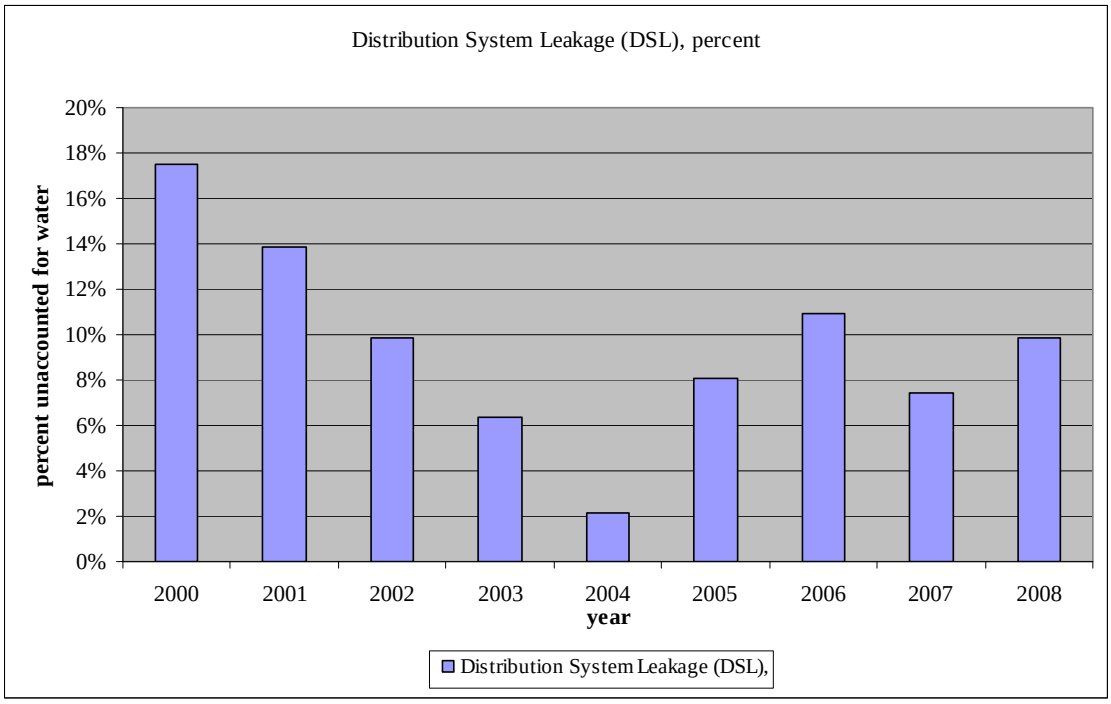
The Water Use Efficiency Rule requires the calculation of system water loss (leakage). Prior to this calculation, water systems are also required to install service meters on all direct service connections[1] before January 22, 2017. This may be problematic for many water systems, but the City of Spokane has had a long-standing policy of metering service connections. The calculations determine the volume of water not attributed to delivery to a customer and thus assumed to be lost to the ground. This loss is to be reported as volume and as percentage. In both cases, the DSL is determined as a running three-year average and the water system must relate this DSL to the DSL standard promulgated by Washington Department of Health. The water use category of Non-Revenue Accounted-For Water is included in the Total Authorized Consumption (AC). This category, which is estimated (non-metered), includes such uses as street cleaning, cleaning water tanks/reservoirs, fire-fighting, and water system maintenance (flushing). This estimate may be reassessed in the future.

The method for DSL calculation and the data for the calculation are in Appendix I, pg. 1. The volume and percent DSL for the last three years areas follows:

	2006	***2007***	***2008***	***Average***
DSL, percent	11%	7 %	10 %	9.4 %
DSL, volume (gallons x 1000)	2,596,891	1,708,120	2,094,593	2,133,201

The most direct means to comply with the Water Use Efficiency Rule standard for DSL is for the 3-year running average to be less than 10% [2] . **The DSL for the City of Spokane Water System is 9.4 %, thereby being in compliance with the DSL standard.**

Following is a graph depicting the annual DSL for 2000-2008:



[1] WAC 246-290-820(2)(a)
[2] WAC 246-290-820(1)(b)(i)

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QUALITY – Drinking Water. An Invaluable Community Resource.

INORGANICS

The City typically has a Washington State Department of Ecology certified lab run a full drinking water inorganics analysis once every three years on each of our sources. In addition, nitrates are tested annually, as required. The most recent inorganic results from certified laboratories are in Appendix IV. **All sources are in compliance with existing National Primary Drinking Water Regulations for Inorganic Maximum Contaminant Levels (MCL)**.

ARSENIC

The effective date for compliance with the new Maximum Contaminant Level (MCL) of 10 ppb was in 2006. **The arsenic readings in 2008 at the Grace and Hoffman Wells were 3.10 ppb and 2.99 ppb respectively.** The maximum arsenic result, which is included in the Water Quality Table for the City's 2007 annual Consumer Confidence Report, is a 2007 result from Well Electric (4.92 ppb).

Reported detections of arsenic by drinking water certified laboratories are a fairly recent occurrence (first in 2001) for the City and are primarily a result of improved laboratory reporting limits. All source wells were sampled 2 to 3 times at this improved reporting limit during the period 2001-2005. The results ranged from less than the detection limit of 1 ppb to 4.49 ppb.

The EPA had set the MCL for arsenic at 50 ppb in 1975. The new MCL for arsenic was published in a Final Rule on January 22, 2001, and it set the MCL for arsenic at 10 ppb, effective 2006. After the publication of the Final Rule, the EPA initiated review of the standard for arsenic to reassess the balance between the cost to water utilities of removing arsenic from drinking water and the medical/social costs for the portion left unremoved. The EPA announced on October 31, 2001, its decision to move forward in implementing the standard for drinking water at 10 ppb.

Further information concerning health impact issues, regulatory requirements, and compliance costs for water utilities/water customers can be found at www.epa.gov/safewater/arsenic/index.html and www.doh.wa.gov/ehp/dw/fact_sheets/Arsenic_in_Drinking_Water_questions.htm.

ASBESTOS

Compliance testing for asbestos is no longer required because the City Water Department no longer has any asbestos-containing (AC) pipe in service. Historically, only a small portion (one third of one percent) of the City's water distribution system east of Havana and south of Trent was comprised of asbestos-cement pipe. The asbestos-containing (AC) pipe had been in service for many decades. The City Water Department Yardley Project replaced 13,603 feet of asbestos-cement pipe.

Testing for asbestos involves counting the number of fibers greater than 10 micrometers in length. On October 29, 1996, and on October 26, 1999, the City took a sample of water from a location in the distribution system being served by asbestos-cement pipe. In 1996, the laboratory detected one fiber and this led to the laboratory reported result of 194,000 asbestos fibers per liter and in 1999 no fibers were detected, which resulted in "less than 98,000 fibers per liter" reported. The MCL is 7 million fibers per liter.

IRON

The inorganic results for 2008 at the Well Electric and Central Wells included results for iron, which were below detection limits (< 0.060 mg/L).

In 2007, there was a detection of iron (0.23 mg/L) in a duplicate sampling for Well Electric, which was attributable to interference in the analysis[3].

There was an iron result from the Nevada St. Well on July 29, 2003, which was 0.497 mg/L. This exceeded the Secondary MCL of 0.3 mg/L. Secondary Drinking Water Standards are standards based on factors other than health effects. As such, these regulated contaminants may cause cosmetic effects or aesthetic effects in drinking water. It was determined that the exceedance was caused by a temporary dislodging of substrate (i.e. sand and silt) from the bottom of the well. Repeat sampling in October was < 0.1, which is more typical of aquifer background concentrations.

NITRATE-NITROGEN

The Ray St. Well continues to be monitored quarterly for Nitrate-N. **In 2008, the highest certified lab quarterly result for the Ray St. Well was 3.83 mg/L.** The result from a duplicate sample analyzed by the City Wastewater Laboratory was 3.72 mg/L. The quarterly results for Ray St. Well for 2007 are as follows:

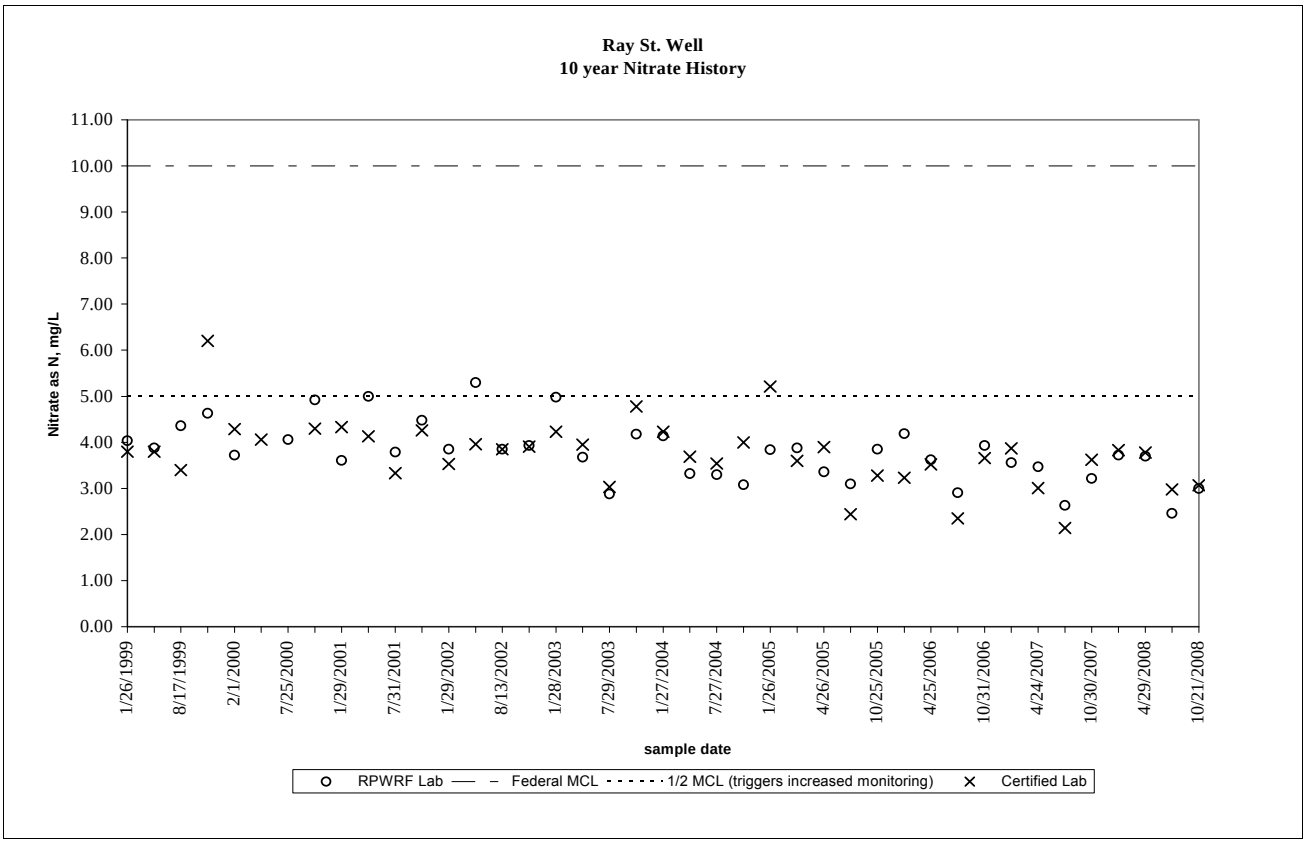
Sample Date	*Certified Laboratory Result - Nitrate-N, mg/L*	*RPWRF Laboratory Result – Nitrate+Nitrite-N, mg/L*
30-January-2007	3.83	3.72
24-April-2007	3.78	3.70
31-July-2007	2.98	2.46
30-October-2007	3.07	3.00

In July 1997, October 1999, and January 2005 the nitrate-nitrogen levels in the Ray Street Well were reported by a certified lab as exceeding half the MCL, 5.23, 6.2, and 5.21 mg/L, respectively.

The historical data for this well reflects a slow trending from less than 1 mg/L in the 1950s to typically 5 mg/L or less currently, and demonstrates that, while elevated compared to other city wells, the nitrate nitrogen level at Ray Street Well is generally flat and still within allowable standards.

[3] The laboratory used Inductively Coupled Plasma-Mass Spectroscopy. Argon Oxide, an inherent contaminate because Argon is the plasma for the method, interferes with the Iron result making it incorrectly positive. The laboratory stated that is was not allowed to correct for this interference.

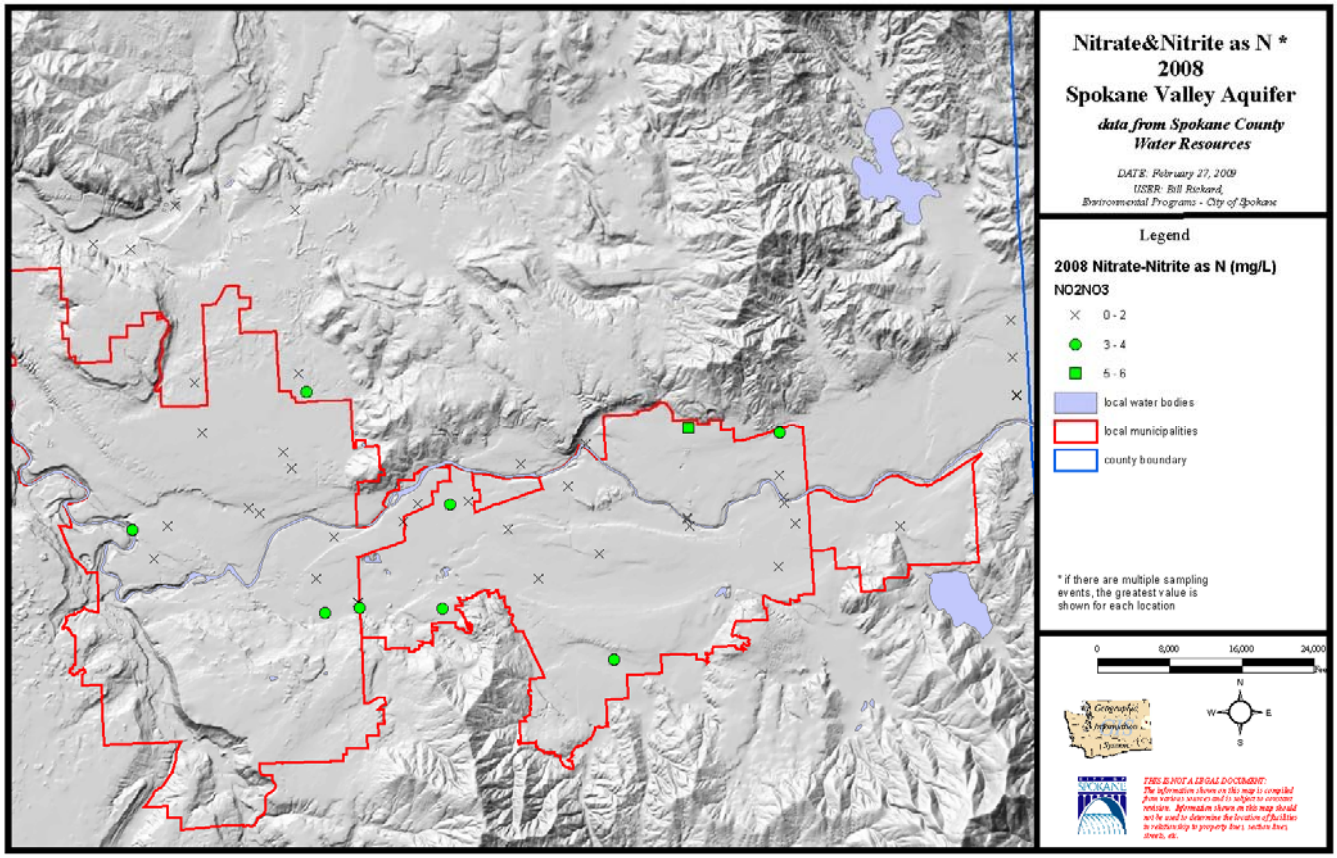
The results for the most recent ten years of testing for nitrate-nitrogen at the Ray St. Well, from certified labs and from the City Wastewater Laboratory, are presented in the following graph. As you will note from the graph, the trend for nitrate-nitrogen at the Ray St. Well has remained constant or slightly declining for a number of years.



All other City sources average 1.42 mg/L for 2008, less than a fifth of the MCL for nitrate-nitrogen. The 2008 results for the other City source wells are as follows:

Source Well	*Certified Laboratory Result - Nitrate-N, mg/L*	*RQWRF Laboratory Result – Nitrate+Nitrite-N, mg/L*
Well Electric	1.86	1.61
Parkwater	2.03	1.76
Hoffman	1.70	1.80
Grace	0.82	0.68
Nevada	1.06	0.89
Central	1.70	1.80

The following map depicts the results of monitoring wells sampled during 2008 by the Spokane County Water Resources Program. The results are for nitrate+nitrite as nitrogen from monitoring wells, springs along the Spokane River, and purveyor wells over the Spokane Aquifer. Where multiple sampling events occurred at the same location, the highest result is depicted on the map. Samples at one location exceeded 5 mg/L, half of the MCL of 10 mg/L. This is a newly established monitoring well at East Valley High School, and this is the second year where monitoring results exceeded 5 mg/L. A long-term trend will need to be assessed, but preliminary analytical results and well drilling descriptions indicate the groundwater at this location is not completely mixed with the Spokane Aquifer. There are a number of wells that had results between 2.5 and 5 mg/L. These wells, including the City of Spokane Ray St. Well, are typically located along the edge of the aquifer, and appear to be subject to nitrate loading to the aquifer that originates at higher elevations.



When present in excess of the MCL, nitrate in drinking water can cause a serious blood disorder (methemoglobinemia), usually in infants. Infants under one year of age should not drink water exceeding the drinking water standard (MCL) of 10 parts per million (ppm) of nitrate expressed as nitrogen. Although no health-based standards exist for adult exposures, the following people may be at risk:

- Individuals with reduced gastric acidity.
- Individuals with a hereditary lack of methemoglobin reductase.
- Women who are pregnant.

For further information concerning nitrate in drinking water and the potential health issues, you can access the EPA website at www.epa.gov/OGWDW/dwh/c-ioc/nitrates.html or the Washington State Dept. of Health website at www.doh.wa.gov/ehp/dw/Publications/331-214_2-21-07.pdf
(Para ver información adicional, visite al; www.doh.wa.gov/ehp/dw/Publications/331-214_spanish_3-7-07.pdf)

LEAD - COPPER

In 1992, the City completed the initial phase of testing for compliance with the Lead - Copper Rule. The City's eight well stations and 100 "at-risk" household taps were twice checked for lead and copper. Lead was not detected in the source water at or above two parts per billion. Copper levels in the source water were below 20 ppb with the exception of one reading at 30 ppb. The federal government has a 0 ppb Maximum Contaminant Level Goal (MCLG) for lead and a 1300 ppb MCLG for copper.

Homes at risk (homes with lead soldered copper plumbing and/or those with lead alloy service lines running from the street to the home) were determined before testing. In addition to 1992, in 1995, 1996, 1997, 2000, 2003 and 2006, 50 at-risk homes were checked each summer. Fewer than 10% of at-risk homes had levels in excess of 8 ppb of lead and 200 ppb of copper. These levels were below the Federal 90th percentile action levels of 15 and 1300 ppb respectively. Federal regulations require that 90% of the tested homes be below these levels. The highest readings detected in homes were 71 ppb for lead and 540 ppb for copper.

Lead & Copper testing of sources and at-risk residences occurs every three years and is scheduled for 2009. The most recent sampling event occurred in 2006, and the 90th percentile for lead was 7.40 ppb and the 90th percentile for copper was 99.9 ppb. These results for lead and copper continue to be substantially less than the 15 ppb Action Level for lead and the 1300 ppb Action Level for copper. The lead results, based on City in-home sampling, also continue to qualify our water system as having "Optimized Corrosion Control." Source water is also analyzed for lead and copper concurrent with the in-home testing. **The maximum concentration in 2006 source water testing for lead was 0.18 ppb and for copper was 6.53 ppb.**

City records indicate that some 981 homes built during World War II were connected to the City's distribution system with lead alloy pipes. In addition, before lead solder was banned in 1988, it was commonly used to connect copper piping in homes. The Spokane Water Dept., in 2000, notified the then current owners of homes with water service lines made of lead alloy and extended an offer to replace the lead pipe, if the homeowner would pay the replacement cost from the property line into the house. 156 homeowners requested their water service line be replaced. The City has completed work at all 156 sites, replacing the service pipe up to the property line. It was not anticipated, but no lead pipe was found on any homeowner's side of the water service. Additionally, the Water Dept. has been replacing the City lead-alloy services when in-home testing results exceeded Action Limits and when water line work was already being conducted. Currently, 630 lead alloy connections remain in service.

Testing on water left sitting in lead-containing pipes for at least 6 hours clearly demonstrates the fact that some lead moves into the water. We encourage anyone with this kind of plumbing, drawing water for cooking or drinking purposes, to let water run from the tap until cold before filling their container, especially if the water is to be given to infants or children. For further information concerning lead and copper in drinking water, you can access the Washington Dept. of Health website at www.doh.wa.gov/ehp/dw/Programs/lead.htm and www.doh.wa.gov/ehp/dw/fact_sheets/copper_in_drinking_water.htm .

PHOSPHORUS

Previous versions of this report typically focused on monitoring results for contaminants and how they related to drinking water regulations. Drinking water regulations typically deal solely with human health related impacts. Phosphorus is not a drinking water regulated contaminant, but is of significant concern in this region as a pollutant of concern in the Spokane River. Local groundwater makes significant contribution to the River and is the background for water discharged to sewer.

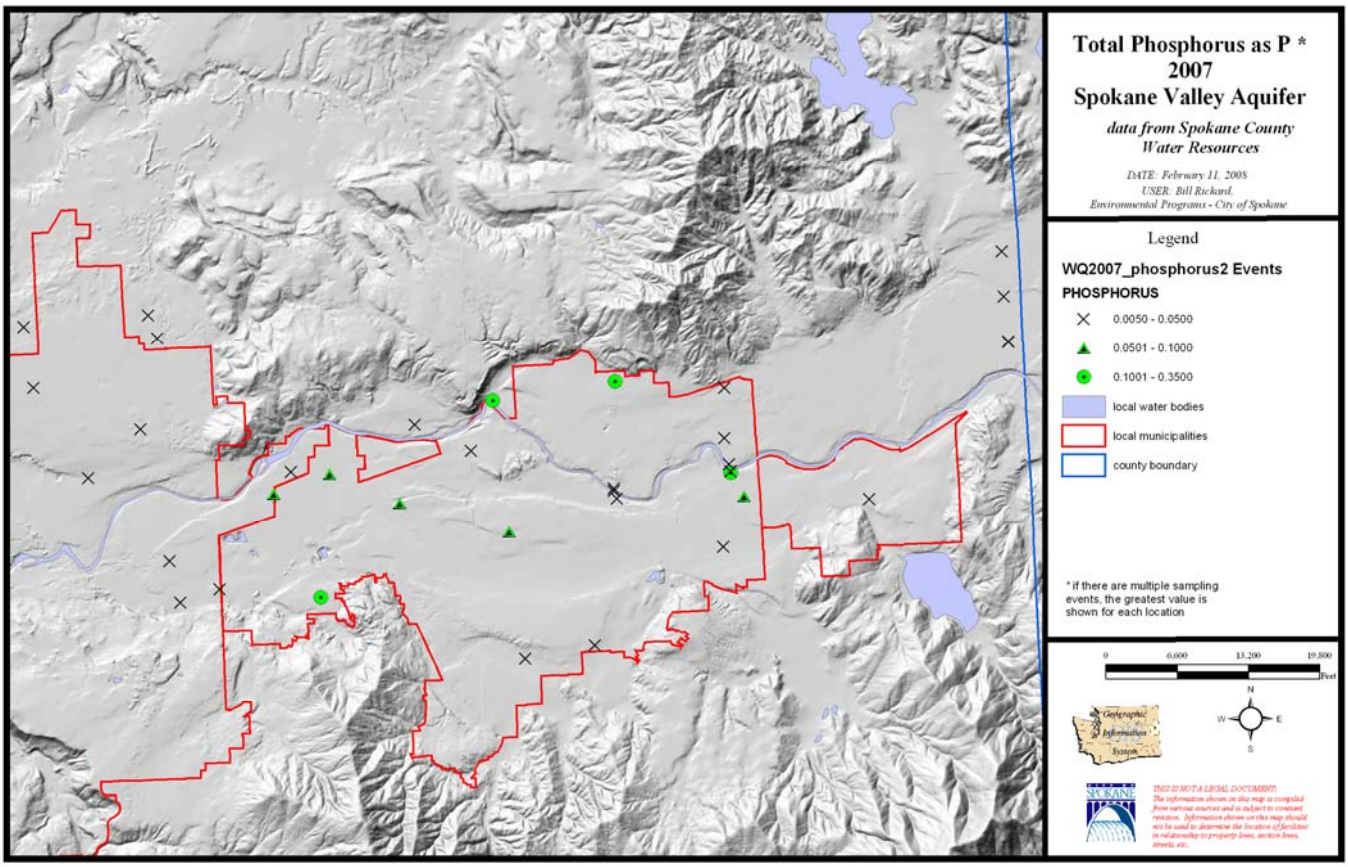
In July 2008, groundwater samples from the City source wells were analyzed by the City RPWRF Laboratory. **Similar to Nitrate concentrations, most City wells have fairly low concentrations, typically close to the detection limit of 0.005. Ray St. Well was sampled three quarters, and the greatest result was .033mg/L.** There is no drinking water

regulatory limit for phosphorus, but to give this some context, the Total Maximum Daily Loading for Dissolved Oxygen for the Spokane River calls for a target for treated wastewater discharges to have a concentration limit of 0.010 mg/L.

Location	*Date Sampled*	*PO4-P, mg/L **	*Location*	*Date Sampled*	*PO4-P, mg/L **
Electric	7/29/2008	0.015	Central	7/29/2008	0.012
Parkwater	7/29/2008	0.020	Ray Street	4/29/2008	0.0265
Nevada	7/29/2008	0.013	Ray Street	7/29/2008	0.033
Grace	7/29/2008	0.019	Ray Street	10/21/2008	0.020
Hoffman	8/05/2008	<0.005			

*Note: Method Detection Limit for these results is 0.005 mg/L

During 2008 the Spokane County Water Resources Program took over 400 samples for Total Phosphorus (including multiple sampling events at one location). Of that number, 16 exceeded 0.025 mg/L. Following is a map demonstrating the distribution of Total Phosphorus results on the Washington side of the Spokane Valley-Rathdrum Prairie Aquifer;



The preceding map illustrates that, similar to nitrate concentrations in groundwater, phosphorus concentrations are greatest along the sides of the valley. This likely indicates loading from run-off from higher elevations. There are a number of sampling sites with higher values that appear to not be located near the sides of the valley or near the Spokane River. These sampling sites have Total Phosphorus concentrations in the range of 0.050 – 0.100 mg/L. In the regional context of 0.010 mg/L, as a standard, this continues to be cause for some concern.

RADIONUCLIDES & RADON

RADIONUCLIDES

The Washington Dept. of Health required the City of Spokane to monitor for Radium 228 (a beta particle emitter) in two different seasons at each source water well station during the timeframe 2005-2007. **There was no radionuclide sampling during 2008.** The Water Dept. chose to conduct this monitoring during 2005. Because the Radium 228 results from Parkwater Wells were greater than the other results, the Washington Dept. of Health requested that we sample Parkwater for two additional quarters in 2007. The results (including 2007 results, highlighted) are as follows:

Well	*Sample Date*	*Radium 228 , pCi/L*	*Sample Date*	*Radium 228 , pCi/L*
Central	04/26/2005	0.12	7/26/2005	0.32
Grace	10/25/2005	0.29	7/26/2005	0.07
Hoffman	10/25/2005	< 0.5	7/26/2005	0.29
Nevada	04/26/2005	0.08	7/26/2005	0.11
Parkwater	04/26/2005	0.1	7/26/2005	1.30
Ray St.	04/26/2005	0.21	7/26/2005	0.37
Well Electric	04/26/2005	0.34	7/26/2005	0.4
Parkwater	**04/24/2007**	**0.63**	**10/30/2007**	**1.41**

The City previously sampled the drinking water wells during 1999, 2000, and 2003 to characterize radionuclide concentrations. The alpha and beta radionuclide concentrations were found to be near or below detection limits. No testing for radionuclides was done in 2001, 2002, or 2004. A single test of the Central Well in 1992 found both alpha and beta levels below lab reporting limits of 5 and 6 picocuries per Liter (pCi/L) respectively. In 1993 and 1997, we completed four quarters of testing for radionuclides at the Parkwater Well field. Beta activity was below the laboratory reporting limit. Out of eight tests, the alpha activity was detected twice with readings of 5.3 and 3.1 pCi/L.

The Federal MCL for Gross Alpha particle activity is 15 pCi/L. The MCL for Gross Beta particle activity is 4 millirems per year (this is a measure of exposure and has been interpreted as the equivalent of 50 pCi/L). The Federal MCL for Radium 226 and Radium 228 (combined) is 5 pCi/L.

The Radionuclide Rule became final in 2000. The monitoring and implementation requirements of this rule were effective starting the first of 2004. Initial Monitoring requirements for the Radionuclide Rule are completed, with regular monitoring beginning in 2008. The following table summarizes the initial “grandfathered” data:

Well	*Sample Date*	*Gross Alpha , pCi/L*	*Well*	*Sample Date*	*Gross Alpha , pCi/L*
Baxter *	Jul-25-2000	< 3	Nevada	Jul-29-2003	1.53
Central	Jul-29-2003	< 1.25	Parkwater	Jul-29-2003	2.61
Grace	Jul-25-2000	< 3	Ray St.	Jul-29-2003	1.36
Hoffman	Jul-25-2000	< 3	Well Electric	Jul-29-2003	1.84

* decommissioned 2003

RADON

The Water Dept. monitored its source wells for Radon in 2008, the results are as follows:

Well	*Sample Date*	*Radon , pCi/L*	*Sample Date*	*Radon , pCi/L*
Central	4/29/2008	534	7/29/2008	468
Grace	7/29/2008	284	10/21/2008	440
Hoffman	8/4/2008	488	10/21/2008	467
Nevada	4/29/2008	426	7/29/2008	473
Parkwater	4/29/2008	534	7/29/2008	534
Ray St.	4/29/2008	503	7/29/2008	452
Well Electric	4/29/2008	402	7/29/2008	212

Quarterly readings of radon at the Parkwater Well averaged 475 pCi/L in 1993 and 436 in 1997. Other City sources, with the exception of the Grace Well, were checked in 1992 for radon and results ranged from 210 to 510 with a mean of 392 pCi/L. The City sampled the drinking water wells during 1999 and 2000 to characterize radon concentrations. These radon concentrations, averaged for each well, ranged from 261 pCi/L (Hoffman well) to 438 pCi/L (Central well). The radon concentrations found in the 2005 sampling event, averaged for each well, ranged from 495 pCi/L (Central well) to 517 pCi/L (Parkwater well).

The Environmental Protection Agency has published a proposed rule for regulating the concentration of radon-222 in drinking water. The rule proposes a maximum contaminant level goal (MCLG) of zero, a maximum contaminant level (MCL) of 300 pCi/L, and an alternative maximum contaminant level (AMCL) of 4000 pCi/L. The proposed rule would require that community water supply systems (including the City's) generally would have to comply with the MCL of 300 pCi/L, unless there is a multi-media mitigation program (MMM) in place. With a MMM, the AMCL of 4000 pCi/L would apply.

The publication of the proposed rule was November 2, 1999, and the comment period closed February 4, 2000. The final rule was expected to be published one year from that date. In preparation for the 2007 report (February, 2007), the Final Rule for Radon had not been promulgated, but the Safewater Hotline advised that the EPA legislative agenda anticipated a Final Rule in May 2009. In preparing for this report (2/26/2009), the Safewater Hotline now advises that the Final Rule is anticipated to be in May, 2011.

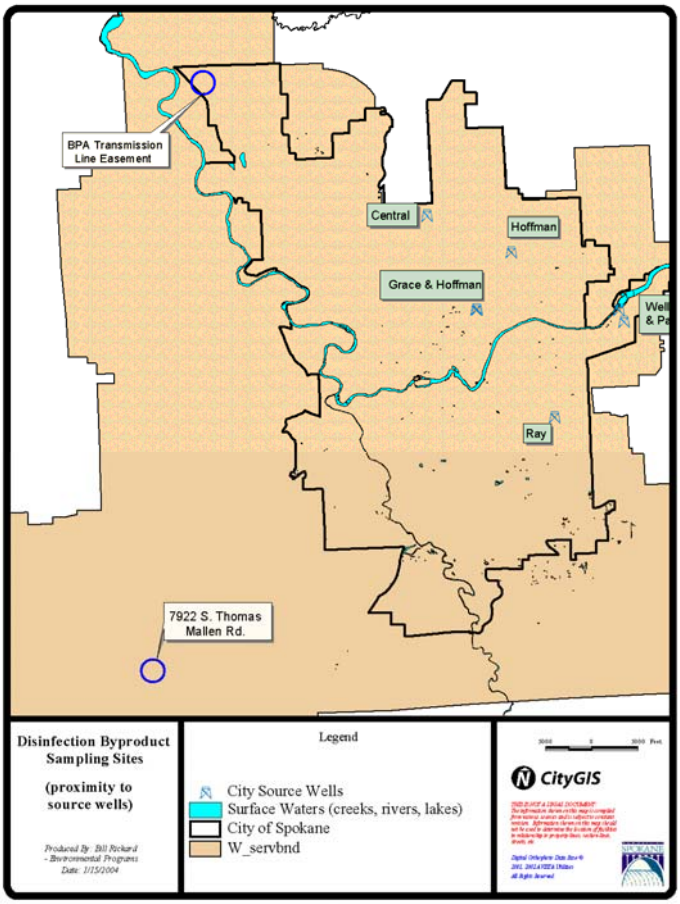
Radon gas is one of a number of radioactive elements that result from the radioactive decay of uranium found locally in natural deposits. Exposure to excessive amounts of radon may increase cancer risk. Most of these risks result from exposure to radon in indoor air. The EPA has determined that 1-2% of the radon in indoor air comes from drinking water. For further information concerning radon in drinking water, access the EPA website at www.epa.gov/safewater/radon/qa1.html . For more general information concerning radon in the environment and the associated health issues, access the EPA website at www.epa.gov/radon/index.html or call the Radon Hotline at *1-800-SOS-RADON* [1-800-767-7236]. An EPA publication entitled "A Citizen's Guide to Radon" can be downloaded from www.epa.gov/radon/pubs/citguide.html.

ORGANICS

DISINFECTION BY-PRODUCTS – DISTRIBUTION SYSTEM

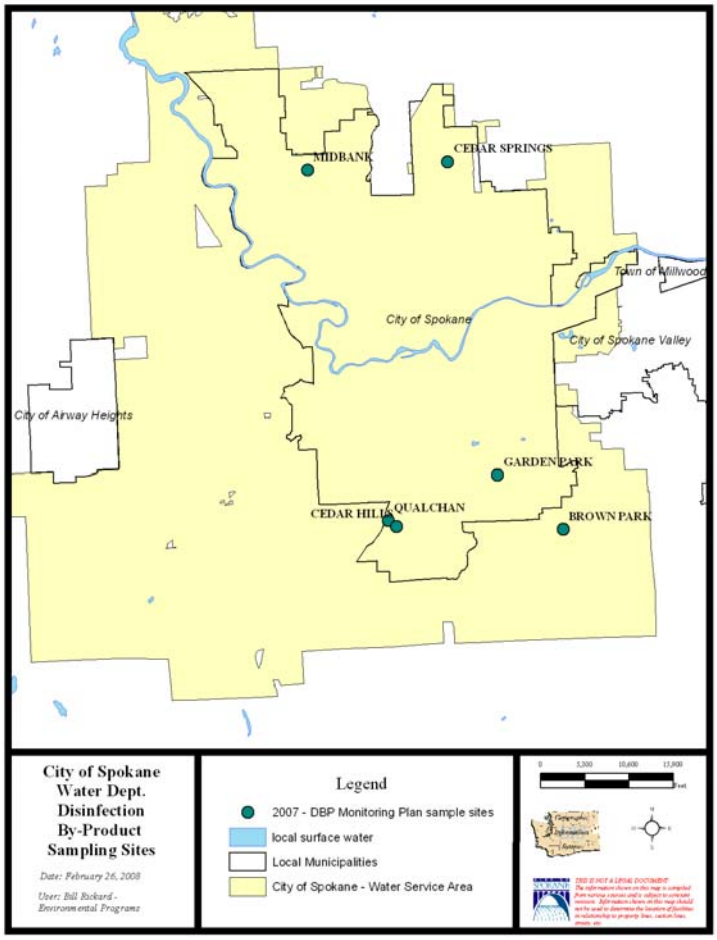
The maximum value during 2008 compliance monitoring of the distribution system for Total Trihalomethanes (TTHM) was 1.89 ppb and for Haloacetic Acids (HAA5) was no detection. This is well below the Federal MCLs and only detected at the extreme end of the distribution system. The 2004 and 2005 results (Appendix V) were used to determine the requirements for the City's water system to comply with the Stage 2 Disinfection By-Products Rule, which became final in January 2006.

The City uses small amounts of chlorine as a drinking water disinfectant. Data on chlorine by-products in the distribution system (such as trihalomethanes) indicates that for the most part, such compounds are not at levels above 1 ppb except out at the far ends of the distribution system. The 1998 ICR testing for the sum of Haloacetic Acids (HAA5) and for Trihalomethanes (TTHM) resulted in maximums of 5.8 ppb and 3.5 ppb, respectively. The federal MCL is 80 ppb for total Trihalomethanes and 60 ppb for the sum of five Haloacetic acids.



In 2004, the City of Spokane Water Dept. started Disinfection Byproducts Rule routine quarterly monitoring in the distribution system for TTHM and HAA5. The Water Department developed a sampling plan, which identified sampling location(s) that reflected the maximum residence time for water in the distribution system. It was determined that the maximum residence time changed in response to increased irrigation use during the summer/autumn months, therefore requiring two sampling locations.

The Mallen Reservoir, near the west extreme of the City Water Service Area, is regarded as having the longest residence time in the system and is the location for Winter and Spring quarterly monitoring. Increased nearby irrigation during the summer/fall reduces this residence time. The BPA Transmission Easement, near the north city limits, has a longer residence time during these periods, and is the sampling location during Summer and Fall quarterly monitoring. The figure shows the relative positions of these sampling locations.



The City submitted a certification stating that the early monitoring data was less than half the MCL for these contaminants, and the City will develop a monitoring plan to take effect in 2012. Starting in 2007, and continuing during 2008, the City Water Department initiated assessment monitoring to determine the potential for disinfection by-products to be formed during the detention period in the distribution system. The DBP assessment sampling sites (see map, left) were selected from the Coliform sampling sites that best represent an estimation of the mid-point of detention time and the longest detention time (specific to the North Hill system. In addition to this ongoing compliance monitoring, other locations have been identified throughout the distribution system for further monitoring to be continued during 2008 & 2009. These results will be used to determine the future Phase 2 sampling sites.

The following table has results from the 2007 & 2008 DBP assessment monitoring:

Sampling date	January 31, 2007			June 8, 2007		
Sample location	Chlorine residual, mg/L	TTHM, µg/L	HAA5, µg/L	Chlorine residual, mg/L	TTHM, µg/L	HAA5, µg/L
Brown	0.19	1.9	< 1	0.23	< 0.5	< 1
Garden Park	0.22	< 0.5	< 1	0.20	< 0.5	< 1
Midbank	0.33	2.2	< 1	0.25	0.6	3
Cedar Springs	0.41	< 0.5	< 1	0.32	0.7	5
Qualchan (HAA)	0.26		< 1	0.25		< 1
Cedar Hills (THM)	0.30	1.5		0.24	< 0.5	

Sampling date	February 12, 2008			July 15, 2008		
Sample location	Chlorine residual, mg/L	TTHM, µg/L	HAA5, µg/L	Chlorine residual, mg/L	TTHM, µg/L	HAA5, µg/L
9th and Pine	0.31	< 0.5	< 1	0.34	< 0.5	< 1
5-Mile	0.40	0.61	< 1	0.32	< 0.5	< 1
Spotted Rd.	0.29	< 0.5	< 1	0.34	< 0.5	< 1
Highland	0.30	< 0.5	< 1	0.33	< 0.5	< 1
Cedar Hills	0.32	1.24	< 1	0.34	< 0.5	< 1

During 1998, the City of Spokane completed Information Collection Rule testing. This federal testing and reporting program was aimed at identifying source water contaminants that are treatable with disinfectants, identifying types of disinfectants being used, identifying resulting disinfection by-products produced, and identifying the quantity of these by-products reaching consumers. The testing locations and a summary of the 1998 results are located in Appendix VII. On October 7, 1997, the EPA agreed that City source water testing had demonstrated there was little in the aquifer water to remove and agreed that additional studies on means of treatment before disinfection were unwarranted.

MtBE (Methyl tert-Butyl Ether)

During 2008, Central, Grace, Nevada, and Hoffman Well Stations were monitored for MtBE, in conjunction with the regularly scheduled Volatile Organic Compounds (VOC) monitoring. There were no detections at a detection limit of 0.5 µg/L. In addition to regularly scheduled monitoring events, Grace and Nevada Well Stations were sampled monthly from August, 2007 to August, 2008 for VOC, and there were no detections of MtBE.

The EPA does not currently regulate MtBE, but it was placed on the Contaminant Candidate List (CCL) www.epa.gov/OGWDW/ccl/cclfs.html (and subsequently on the UCMR-Round 1 List 1). As such, the City of Spokane sampled MtBE under the UCMR in 2002 & 2003. There were no detections in 8 samples (see Appendix VIII).

In 2006, Parkwater, Nevada, and Ray Well Stations were monitored for MtBE, with no detections. In 2000, the Hoffman and Ray Wells were tested for MtBE, with no detections. In 1999, the City tested for MtBE at the Central and Nevada wells in the 1st quarter and Well Electric and Parkwater in the 4th quarter. There were no detections in any of the four samples, with the detection limit of 0.5 ppb. Also in 1999, Spokane County tested 10 aquifer monitoring wells for MtBE. The dedicated monitoring wells were selected for their proximity to large above-ground fuel storage facilities. Again, there were no detections in any of these samples, with a detection limit of 0.5 ppb.

MtBE has been used in gasoline across the nation since the 1970s, first as a replacement for lead and then as an oxygenation source and/or an octane booster (in premium fuel blends). Further information concerning the uses of MtBE can be found on the EPA website www.epa.gov/mtbe/ . Many parts of the country with requirements for oxygenated automobile fuel have experienced MtBE contamination in local groundwater supplies as a result of leaking above-ground and underground fuel tanks and/or fuel spills. The requirement for winter oxygenation has been eliminated in Spokane County. Historically **ethanol (ethyl alcohol)** was the commonly used oxygenate in our area. Consequently, the local risk of MtBE contamination is considered to be low.

There is currently a drinking water advisory for MtBE www.epa.gov/OST/drinking/mtbe.html. This Advisory recommends a range of 40 µg/L or less based on potential taste and odor consumer acceptance. The EPA believes this would also provide a large margin of exposure (safety) from toxic effects.

Further information concerning the health impact, environmental effects, and technical background of MtBE can be found at the following website: the EPA Office of Water at www.epa.gov/safewater/mtbe.html .

OTHER VOLATILE ORGANICS

Appendix VI contains the history of ORGANIC CHEMICAL DETECTIONS summary for each well station that contributes to the City Water System. Only organic compounds that have previously been detected in City water are listed. Many compounds have been tested for and not detected - see Appendix I: "TESTS RUN ON CITY OF SPOKANE WATER."

During 2008, Central, Grace, Nevada, and Hoffman Well Stations were monitored for Volatile Organic Compounds (VOC). There were no detections. In addition to regularly scheduled monitoring events, Grace and

Nevada Well Stations were sampled monthly from August, 2007 to August, 2008 for VOC in association with the Whitney Fuel Fire (see below), and there were no detections.

An unusual incident occurred on **July 23, 2007. A fully involved structure fire occurred at the Whitney Fuel facility at 2733 N. Pittsburg.** Due to the volumes of petroleum fuel in on-site tanks and tanker trucks, and the fire-fighting foam used in the incident, there was concern that related contaminants might travel to groundwater. The Grace and Nevada wells are west from this location and the City groundwater model indicated that it was unlikely that contamination would reach these wells, but could not rule out the potential chance and anticipated a 7 – 10 month time of travel to these wells. Investigation at the fire scene indicated that there was little likelihood that contaminants reached groundwater, but weekly monitoring at Grace and Nevada was initiated. **County sampling at a nearby sentinel monitoring well on August 21, 2007 resulted in a detection for Diesel-range Total Petroleum Hydrocarbon at 0.130 mg/L.** Sampling for Volatile Organic Compounds (including Tentatively Identified Compounds) and Diesel-range Total Petroleum Hydrocarbons were conducted at Grace and Nevada wells on approximately weekly basis from July 31, 2007 to September 26, 2007. The sampling frequency was decreased to monthly from October through August 2008. **There have been no detections at Grace and Nevada Wells and no further detections at the sentinel monitoring well.**

The VOC monitoring conducted on July 27, 2004, at Hoffman Well included a detection (3.09 ppb) of Tetrachloroethene (aka Perchloroethylene or "Perc"). City staff conducted an investigation of the immediate vicinity (the Well Station property and adjacent neighboring properties). Interviews with Water Dept. staff revealed that routine maintenance, of the production pump motor using a commercial solvent with the sole ingredient being Tetrachloroethene, occurred just prior to sampling. Standard Operating Procedures were changed so this product would no longer be used inside a well station. Additional sampling was conducted on September 1, 2004, and on October 26, 2004. Both results were less than detection limits. The State Dept. of Health agreed that this excursion did not represent a legitimate characterization of drinking water. The two monitoring events in 2005 at Hoffman concluded four quarters of voluntary monitoring, with no detections of VOC contaminants.

Historically, Central, Grace, Nevada, and Ray Well Stations have had detections (not exceedances) of regulated volatile organic compounds, other than Trihalomethanes. 1,1,1-Trichloroethane and Tetrachloroethene were detected more than 5 years ago. These detections were well below the MCLs. During 1998, Trichlorofluoromethane (aka Freon 11) was detected at the Hoffman and Grace wells in the July testing. The concentrations were 1.1 and 0.6 ppb, respectively. This volatile compound is not regulated under Federal Drinking Water regulations. **These concentrations are well below the Washington State Advisory level (SAL) of 1300 ppb.** There was no previous detection of this compound, and there have not been detections in subsequent testing.

On July 25, 2000, the Hoffman Well was sampled for VOCs, and the test results showed a detection for dichloromethane of 1.50 ppb. **The MCL is 5 ppb and the MCLG is zero.** The laboratory was contacted, and the laboratory blank (an analytical sample that is expected to be free of contamination) also had a detection for dichloromethane with a concentration of 4.06 ppb. As this compound is a common laboratory contaminant and present in the blank at over twice the sample result, the Dept. of Health concurred with our assessment that this does not characterize an actual detection in the source water.

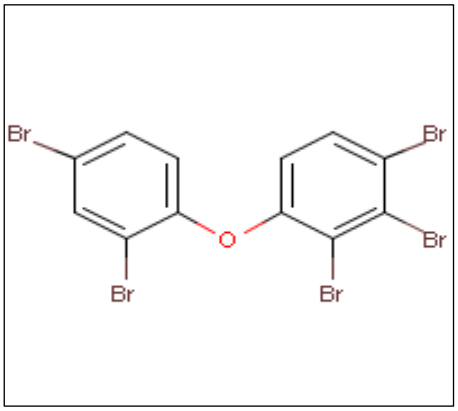
Trihalomethanes (THMs, chloroform, bromoform, bromodichloromethane, dibromochloromethane) are one group of volatile organic, disinfection by-products. That is to say, they can originate from chemical interactions between a disinfectant (chlorine gas in the City's system) and any organic matter present in the raw water. **There were no detections of THM in source water monitoring for 2007**, and the most recent detection in source water was 2000 when the Hoffman result for total THM was 1.92 ppb. This is well below the new MCL of 80 ppb, which was effective December 1998. Testing results for Trihalomethane, Total Trihalomethane, and Maximum Total Trihalomethane Potential are included in Appendix VI.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer. In February 1998, a California Department of Health Services study linking Trihalomethanes to spontaneous miscarriages was widely reported. The study levels were 75 ppb Total Trihalomethanes and 18 ppb Bromodichloromethane. The maximum historical City readings for comparison were 8.5 ppb and 1.7 ppb respectively.

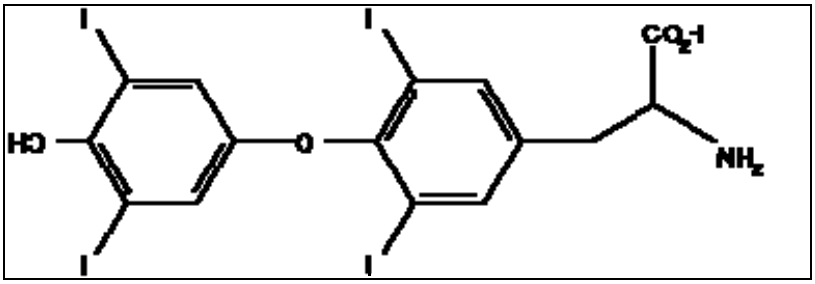
PBDE (Polybrominated diphenyl ethers)

Ecology and Wash. Dept. of Health jointly published *Washington State Polybrominated Diphenyl Ether (PBDE) Chemical Action Plan: Interim Plan on Dec. 31, 2004.* Given concern about this seemingly ubiquitous family of compounds, the Water Dept. conducted investigative monitoring for PBDE.

Polybrominated diphenyl ethers (PBDEs) are a class of additive brominated flame retardants used in a variety of plastics and foams. The PBDE class includes 209 different theoretical forms of the PBDE molecule, called congeners. The illustrations below show the structural similarity between a congener of PBDE, and a thyroid hormone (thyroxine). The similarities in structure may indicate the potential health effects of PBDE. However, actual health effects in humans are not clear at this time.



Left figure: PBDE 85-copyright U.S. Library of Medicine



Right figure: thyroxine – Wikipedia online encyclopedia

The results of one sample (note: results are in parts per trillion) obtained from Well Electric are as follows:

PBDE congeners	*Congener abbr.*	*Results, ng/L*
2,4,4'-Tribromo diphenyl ether (ng/L)	BDE-17	< 0.1
2,2',4,4'-Tetrabromo diphenyl ether (ng/L)	BDE-47	0.36
2,2',4,4',5-Pentabromo diphenyl ether (ng/L)	BDE-99	< 0.1
2,2',4,4',6-Pentabromo diphenyl ether (ng/L)	BDE-100	0.5
2,2',4,4',5,5'-Hexabromo diphenyl ether (ng/L)	BDE-153	< 0.1
2,2',4,4',5,6'-Hexabromo diphenyl ether (ng/L)	BDE-154	< 0.1
2,2',3,4,4',5,6-Heptabromo diphenyl ether (ng/L)	BDE-181	< 0.1
Decabromo diphenyl ether	BDE-209	< 0.1

Drinking water is believed to be a very minor source for the estimated daily exposure from all sources (i.e. water, food, air, etc.). Note that further sampling for five PBDE congeners will occur in the UCMR Round 2 (further discussion on page 25). Also note that during 2007, the Governor of Washington signed into law, a limited prohibition of PBDE in Washington (2007-ESHB-1024). For further information, refer to the *Washington State Polybrominated Diphenyl Ether (PBDE) Chemical Action Plan: Final Plan (Jan. 19, 2006)* at www.ecy.wa.gov/pubs/0507048.pdf
For further information concerning PBDE and EPA activities go to www.epa.gov/oppt/pbde/

SYNTHETIC ORGANICS

Grace, Hoffman, and Central Wells were sampled (twice each) for Synthetic Organic Chemicals (SOC) during 2008. There were no detections.

In 2006, the October sampling at Well Electric detected Di-Methyl Phthalate at 0.70 ppb (detection limit is 0.4 ppb). The compound is a common laboratory contaminant and is not regulated (i.e. there is no MCL). Because of the low concentration, and no detection on resampling in December, State Department of Health agreed that this did not characterize the source water quality.

Appendix VI contains the historical results for ORGANIC CHEMICALS, including the SOC results. Some of the compounds in the Unregulated Contaminant Monitoring Rule (UCMR) are also in the SOC testing, so the UCMR testing was conducted with SOC testing during 2003.

The City started testing for SOCs in the wells in 1994, with additional tests in 1995, 1997, 1998, and 1999. This testing includes pesticides, herbicides, PCBs, and phthalates. In the first two quarters of 1994, Parkwater testing detected Di(2-ethylhexyl) Phthalate twice (0.3 & 0.2 ppb). Di(2-ethylhexyl) Adipate was detected once (2.1 ppb) at Parkwater and again in 1997 at Hoffman (0.7 ppb). The MCLs for these compounds are 6 ppb, and 400 ppb respectively. Di(2-ethylhexyl) Phthalate has a MCLG of zero. These two compounds are associated with synthetic rubber and plastic, which are common in labs and industry.

Other than the following exceptions the results have all been non-detect. The first exception has to do with those detections listed in the paragraph above. The second exception has to do with a detection of Di-n-Butylphthalate which showed up at low levels in all of the samples taken in August of 1997. This compound, which is currently an unregulated SOC, was also detected in the laboratory blank. The fact it was found in the blank supports the idea that it showed up as a result of laboratory contamination and was never in the sampled water.

UNREGULATED CONTAMINANT MONITORING – Round 1, List 1

The reauthorization of the Safe Drinking Water Act in 1996 resulted in changes to the EPA Unregulated Contaminant Monitoring Regulations (UCMR). Pursuant to these promulgated rules, the City of Spokane participated in UCMR Round 1 during 2002-2003, as required.

The List 1 contaminants were sampled two times at source wells, except Well Electric which we sampled four times (due to its proximity to the Spokane River). **There were no List 1 detections.** List 2 was for those contaminants for which methods had to be developed (Spokane was randomly selected to test for one micro-organism, see page 28). The sampling schedule and results summary are found in Appendix VIII.

Further information concerning the UCMR testing can be found at: www.epa.gov/safewater/ucmr.html

UNREGULATED CONTAMINANT MONITORING – Round 2

The City of Spokane Water System, given its size, is required to conduct **Assessment Monitoring (List 1) for 10 chemicals** and **Screening Survey (List 2) for 15 contaminants** during a 12-month period during January 2008-December 2010. The City of Spokane is currently scheduled to conduct this monitoring July, 2009 and January, 2010. Further information on Round 2 testing, including the specific contaminants, can be found at the EPA UCMR Rd2 website; http://www.epa.gov/safewater/ucmr/ucmr2/basicinformation.html

XENOBIOTICS – Emerging Contaminants

In recent years there has been growing concern throughout the nation about organic compounds that are present in our environment, but are not typically thought of as contaminants. The compounds may be present in surface waters, and less likely in groundwater. These compounds are typically not in concentrations that would be acutely toxic, but may have chronic impacts, particularly as interference to the human endocrine system. Chemicals of this kind have had significant impacts on aquatic species.

During 2008, the Water Department conducted investigative monitoring for a broad spectrum of these compounds that are pharmaceuticals and personal care products (PPCPs), and sterols and hormones. A complete list of the compounds is found in Appendix II (page 33). The samples from Grace and Parkwater wells were analyzed by EPA Methods 1694 (Pharmaceuticals and Personal Care Products by HPLC/MS/MS) and 1698 (Steriods and Hormones by HRGC/HRMS). **Of 103 compounds in the laboratory analysis, there were no detections.**

Further information about these emerging contaminants can be found at the EPA website; www.epa.gov/ppcp/ .

MICROBIOLOGICAL CONTAMINANTS

COLIFORM BACTERIA - SOURCE

The City of Spokane well station raw source water has been tested regularly for coliform bacteria. While historically there has been no requirement to test for coliform bacteria in source water, the City of Spokane has monitored this water quality parameter. More recently, testing requirements to determine whether hydraulic continuity exists with the Spokane River has increased the testing frequency. **In 2008, out of 82 tests for coliform bacteria in the City Source Water Wells, there were 0 detections of total coliform positive results and 0 detections of fecal coliform positive results.**

Out of 381 tests over the 5-year period from 2004 through 2008, 6 positive total coliform results were found, of which 1 was positive for fecal coliform. The greatest concentration detected was 1 colony per 100 milliliter for fecal coliform bacteria (Well Electric, Apr-26-2004) and 39.7 colonies per 100 mL for total coliform bacteria (Grace, Jul-25-2006).

HETEROTROPHIC PLATE COUNT BACTERIA – SOURCE

In 2008, out of 77 Heterotrophic Plate Count (HPC) tests, there were 33 positive results. The greatest concentration was 101 colonies per milliliter of sample. HPC tests were conducted 363 times over the 5-year period from 2004 through 2008 on raw source water. There have been 199 positive HPC results. Washington State Drinking Water Regulations state *"Water in a distribution system with a HPC level less than or equal to 500/mL is considered to*

have a detectable residual disinfectant concentration" [4]. The maximum detection during this five-year period was 347 colonies per milliliter at the Ray St. Well in April 2007. Without regard to source water HPC levels, City source water is treated with chlorine to safeguard drinking water quality. This is done primarily because of the size and age of the city's distribution system. Some water utilities in this area (drawing from the same aquifer) do not add any disinfectant.

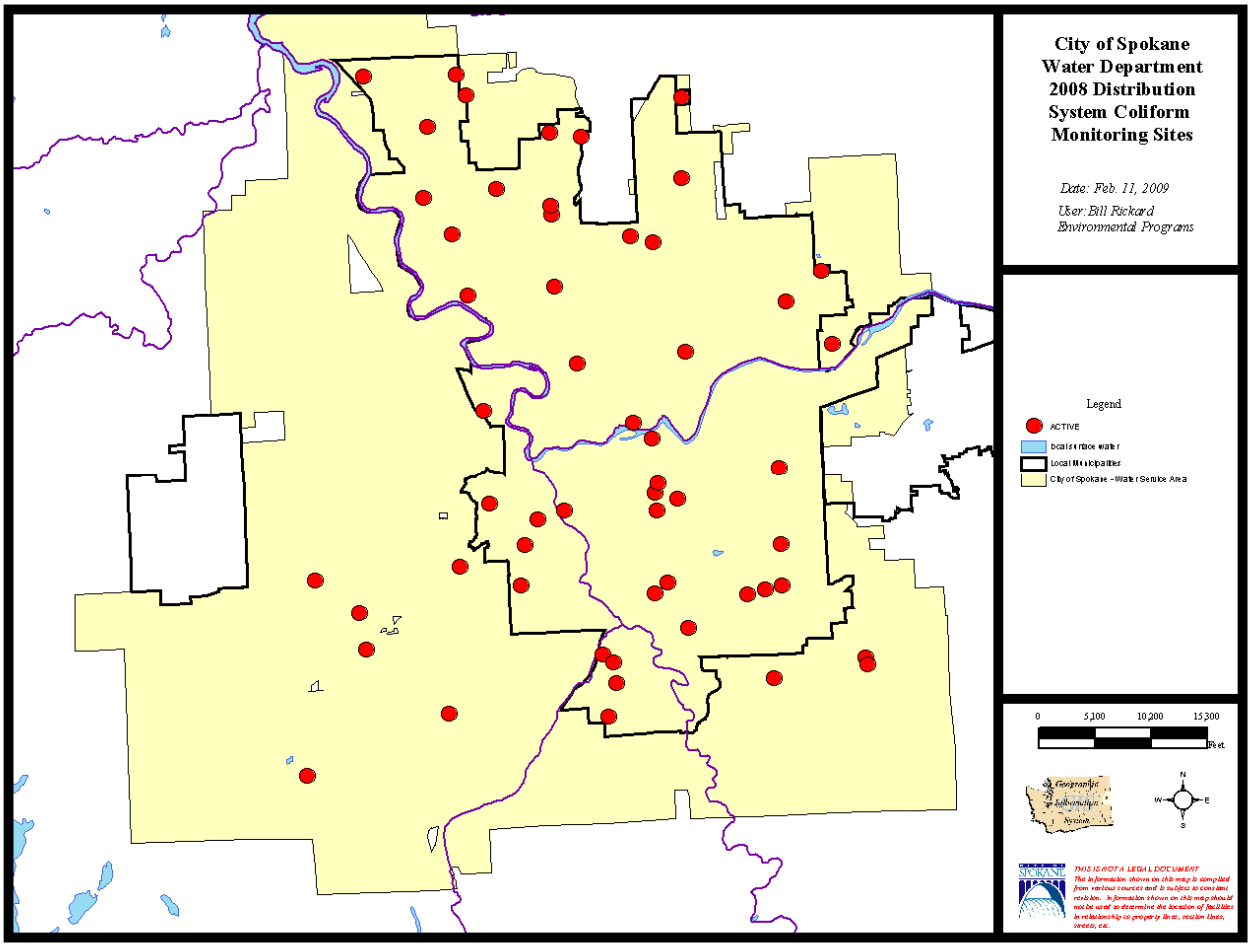
COLIFORM BACTERIA - DISTRIBUTION SYSTEM

Coliform testing is typically being done four days a week from various points in the distribution system. Historically, the City Water System scheduled 122 samples per month. The Water Department anticipates having greater than 220,000 customers in the near future. This change of population tier[5] would require taking 150 samples per month, which was adopted as the target for distribution system coliform monitoring by the Water Dept. in 2007. When a coliform positive test result is reported, re-sampling is done. **During 2008, the City Water Dept. had 1960 coliform bacteria samples analyzed, an increase from 1883 in 2007 and 1495 in 2006. In 2008 there were no positive coliform bacteria results in the distribution system.** The Maximum Contaminant Level is that no more than 5% of the total coliform bacteria tests can be positive per month. In 2008, the greatest number of positive results was 0 in 178 samples. This is 0.0 % of the results, well below the MCL.

On October 17, 2005 there was one E. coli present result, but subsequent re-sampling (resampling of the site, plus one sample each immediately up and down "stream" from the site) was negative, so the result was not confirmed.

The Water Department staff has worked to refine the sampling sites for the distribution system. Concerns about inadvertent contamination of sampling sites and locations that don't adequately represent the distribution of the water system, has caused the Water Department staff to establish more dedicated sampling sites at locations more representative of the entire system. Following is a map of the distribution system sampling sites during 2008, overlaid on the water service area. It is important to note that the sample sites are evenly sited based on the distribution system and population density, which may not currently reach all parts of the water service area:

[4] Ref. WAC 246-290-451 (3)(c)
[5] ref. WAC 246-290-300 (3)(e-Table 2)



Water Department staff state that coliform bacteria have not been confirmed in the distribution system for at least the last 25 years. Sample handling or collection errors are suspected causes of the original detections.

AEROMONAS BACTERIA – DISTRIBUTION SYSTEM

The UCMR Round1 - List 2 candidates were sampled by a small, EPA randomly chosen group of water systems. One group of water systems tested for the chemical candidates and a separate group of water systems tested for the microbiological candidate. The City of Spokane was one of the water systems randomly chosen to test for the microbe, which was *Aeromonas sp.*, with analysis conducted using EPA method 1605**.**

There were no detections of Aeromonas ssp. in this sampling.

The List 2 testing for *Aeromonas sp*. was conducted during 2003. Three sampling sites were identified in the distribution system for each sampling event. Three samples (one from each location) were taken from these predetermined locations in the distribution system. These points were chosen based on: 1) an average chlorine residual, 2) a "dead-end" point where the chlorine residual has had its lowest concentration, and 3) the longest (furthest away) residence time in the system. The mid-point sample location (average residual) was set at Fire Station #3 at 1713 W. Indiana. The lowest residual sampling point was selected to be at the Shawnee Water Tank in the distant northwest corner of Spokane. The longest residence time was set at a business located on the West Plains, west of the City.

There were six sampling events during the year, including three of the events occurred during the summer months (July, August, September). Appendix VIII summarizes the sampling schedule and results.

Further information concerning the Aeromonas sp. can be found in an EPA report at:
http://www.epa.gov/waterscience/criteria/humanhealth/microbial/aeromonas-200603.pdf

PROTOZOA

A number of cities and towns throughout the country in recent years have experienced problems with Giardia and/or Cryptosporidium getting into the distribution systems. Most times, problems with these parasitic organisms have been associated with surface water sources. **The City is not aware of, nor has the State Department of Health or Spokane Regional Health District indicated an awareness of, cases where infections with these organisms were traced back to the City's water system**.

In December of 1994 and March of 1995, the City of Spokane tested for the presence of Giardia and Cryptosporidium at the Well Electric Station. Well Electric sits nearer the Spokane River than other sources. **These microorganisms were not detected**. Again in June and September of 1995, similar tests were run and Microscopic Particle Analysis was added. **This testing revealed none of the microorganisms of concern**, nor were other "surface water indicators" seen.

In 1997, the City was formally notified by the State that two City wells were built and located such that a potential to draw river contaminants into the wells might exist. As a result of further testing, a determination was made that Baxter (a former seasonal source, which no longer exists) was not considered to be under the influence of surface water. Well Electric (a permanent source) was determined to be hydraulically connected to the River and further monitoring was conducted through June of 2003 to determine if Well Electric was under the influence of the River. That is to say, to determine if contaminants would move from the river to the source well.

In a letter dated February 11, 2004, the Department of Health stated that Well Electric would be classified as groundwater for regulatory monitoring and compliance purposes, providing that the provisions in the City's operational plan are followed. The operational plan has two main components: first, a requirement to maintain an increased level of disinfection at Well Electric, and second, a plan to avoid using Well Electric when it has the potential of being under the influence of the Spokane River, which can occur during river high flow events. The City, in consultation with the Washington Dept. of Health, will continue to evaluate the impact of this hydraulic connection.

During 2001, 2002, & 2003, the City Water Department conducted its investigation of this hydraulic connection. Monitoring was conducted at Nevada, Ray St., Parkwater and Well Electric well stations for Microscopic Particle Analysis (MPA). This testing procedure involves pumping large volumes of water through a filter media. This filter media is sent to a laboratory where the media is washed to remove the solid material filtered out of the water. This solid material is concentrated to a volume suitable for observation with a microscope. The observed solid material is counted and identified. A risk value is assigned to the particle information. The risk value corresponds to the probability that the source water is under the influence of surface water (Spokane River).

The following table summarizes the MPA results for this 3-year period:

Well Station	*Total # of tests*	*# of low risk (result less than 9)*	*# of moderate risk (result 10 to 19)*	*# of high risk (result 20 and greater)*
2001				
Nevada St. Well	7	7	0	0
Ray St. Well	6	6	0	0
Parkwater Well	14	11	3	0
Well Electric (#4 & #5)	30	29	1	0
2002				
Nevada St. Well	1	1	0	0
Parkwater Well	2	2	0	0
Well Electric (#4 & #5)	22	19	3	0
2003				
Well Electric (#4 & #5)	6	6	0	0

People who become ill as a result of consuming Giardia and/or Cryptospoidium typically recover after suffering severe bouts of diarrhea. However, people whose immune systems are compromised, or are otherwise in poor health, can die as a result of these infections. For further information concerning the potential health effects issues, access the websites at the Center for Disease Control and Prevention at: www.cdc.gov/ncidod/dpd/parasites/cryptosporidiosis/default.htm (Cryptosporidium) and www.cdc.gov/ncidod/dpd/parasites/giardiasis/default.htm (Giardia) and the EPA website at www.epa.gov/OGWDW/crypto.html (Para ver información adicional, visite al; www.epa.gov/safewater/agua/crypto.html).

VIRUSES

During 2006, the Water Dept. conducted an investigative sampling for coliphage viruses. The 2006 report detailed the sampling to date and out of 20 results, there was one "presence" result for Host: E. coli Famp (15597) detected at the Grace Well Station (May 3, 2006). **The study concluded in January, 2007; out of 4 results (bringing the study total to 24 results) there were no additional detections.** Sampling information (including the January, 2007 results) is located in Appendix IX.

Coliphage viruses live in coliform bacteria hosts and their presence in groundwater may be an indication of fecal contamination. Ten samples from five wells were submitted and each sample was tested using Method 1601 qualitative (presence/absence, two-step enrichment procedure) for two types;

- E. coli F_{amp} for male-specific coliphage and,
- E. coli CN-13 for somatic coliphage).

Some cities and other utilities have done virus testing as part of their Information Collection Rule requirements. Results of their testing, as well as recent research studies, demonstrate that viruses react differently than bacteria to deactivation

from environmental effects or disinfection treatment. This information should provide valuable insight into what viral concerns we should have and into what testing methods are best used.

Environmental Programs is not aware of any other testing having been done, to date, for viruses in Spokane-Rathdrum Prairie Aquifer water.

English:
This report contains important information about the drinking water supplied by the City of Spokane. Translate it, or speak with someone who understands it well.

Spanish:
Este reporte contiene información importante acerca del agua potable suministrada por la Ciudad de Spokane. Tradúzcalo, o hable con alguien que lo entiende bien. Para ver información adicional, visite al; http://www.epa.gov/safewater/agua.html.

Russian:
В этом отчете содержится важная информация относительно питьевой воды, поставляемой службой города Спокэн. Переведите этот отчет или поговорите с тем, кто его хорошо понимает.

Vietnamese:
Bản phúc trình này chứa đựng những thông tin quan trọng về nước uống được cung cấp bởi City of Spokane. Hãy phiên dịch, hay hỏi thăm người nào hiểu rõ về tài liệu này.

GENERAL INFORMATION

Across the nation, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

- Biological contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water run-off, and residential uses.
- Organic chemicals, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water run-off and septic systems.
- Radioactive materials, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food & Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by contacting the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791, or you can access additional information at EPA websites: www.epa.gov/safewater/dwhealth.html or www.epa.gov/safewater/hfacts.html

HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Additional information concerning:

Radon: During 2008, the City conducted 14 tests from 7 source wells for Radon-222. The single highest result was 534 pCi/L, the lowest was 212 pCi/L, and the mean average was 444 pCi/L.

Radon is a radioactive gas that you can't see, taste, or smell, and is a known carcinogen. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Breathing air containing radon can lead to lung cancer and/or, drinking water containing radon also may cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call EPA's Radon Hotline (800-SOS-RADON) or access the EPA website at www.epa.gov/iaq/radon. For local assistance concerning radon in the home, contact the Spokane County Health District – Chemical & Physical Hazards office at 509-324-1560 ext. 5.

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Spokane is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

CITY OF SPOKANE'S SYSTEM

All of the City of Spokane's drinking water comes from the Spokane-Rathdrum Prairie Aquifer - designated a "sole source" aquifer in 1978. The Spokane Aquifer (that portion of the larger aquifer lying within Washington State) and the Spokane River exchange water. The rates and locations of exchange are the subject of continued study.

Due to the porous nature of the ground surface and the number of potential contaminant sources, the possibility of contaminating the aquifer exists if good "housekeeping" measures are not followed for all activity over and adjacent to the aquifer. In order to safeguard water quality, the City, in coordination with other stakeholders, is currently implementing a Wellhead Protection Program. This Program endeavors to make information about, and appropriate disposal mechanisms for, dangerous and/or critical materials that are generated in the Aquifer Sensitive Area.

For additional information regarding the City of Spokane's Drinking Water or related issues you can call:

City of Spokane Water & Hydroelectric Services	509-625-7800
City of Spokane Environmental Programs	509-625-6570

The Mayor recommends Water and Hydroelectric Services policy and rates to the Spokane City Council.
The Council meets every Monday at 6:00 p.m. in the Council Chambers at
City Hall (808 W. Spokane Falls Blvd., Spokane, WA)

Appendix I - Water Use Efficency compliance data

4-Feb-2009

Distribution System Leakage (DSL)

	2008	2007	2006	2005	2004	2003	2002	2001
Service Meter Reading-Single Family, cu.ft.	1,152,981,200	1,202,265,680	1,203,061,552	1,086,928,400	1,193,035,800	1,237,952,600	1,190,542,300	1,183,533,800
Service Meter Reading-Multi Family, cu.ft.	409,792,300	472,555,248	461,200,784	421,588,600	412,155,800	419,161,800	391,183,100	385,784,600
Service Meter Reading-Commercial/Industrial, cu.ft.	744,076,700	831,283,552	836,985,600	797,205,000	892,540,700	777,286,200	746,383,800	736,680,500
Service Meter Reading-Government, cu.ft.	212,251,200	275,573,144	275,364,760	268,069,400	270,143,600	268,998,700	237,110,500	230,395,300
Emergency Interties, cu.ft.	* *	* *	* *	29,600	23,490,900	17,600	95,300	13,300
Wholesale Amount Sold, cu.ft.	10,046,300	29,756,900	21,344,300	13,107,300	9,443,600	9,983,100	11,400,200	22,519,100
Non-Revenue Accounted for Water, cu.ft. (estimate) *	28,000,000	28,000,000	28,000,000	28,000,000	28,000,000	28,000,000	28,000,000	28,000,000
Total Authorized Consumption, cu.ft. *	2,557,147,700	2,839,434,524	2,825,956,996	2,614,928,300	2,828,810,400	2,741,400,000	2,604,715,200	2,586,926,600
Total Authorized Consumption (gal. X1000) (AC) *	19,127,465	21,238,970	21,138,158	19,559,664	21,159,502	20,505,672	19,483,270	19,350,211
Total Production (gal. X1000) (TP)	21,222,058	22,947,090	23,735,049	21,278,719	21,615,890	21,896,539	21,611,161	22,466,937
Distribution System Leakage (DSL), volume (gal. X1000)	2,094,593	1,708,120	2,596,891	1,719,055	456,388	1,390,867	2,127,891	3,116,726
Distribution System Leakage (DSL), percent	10%	7%	11%	8%	2%	6%	10%	14%

* Total Authorized Consumption includes Non-Revenue Accounted for Water, which is consistent with Water Use Efficiency Rule guidance (see definition at right). This is different from past practice in previous Water System Plans. The value for Non-Revenue Accounted for Water (estimated, non-metered) will be reassessed in the future.

* * Emergency intertie volumes are combined with Wholesale Amount sold

WAC 246-290-010 Definitions. - "Authorized consumption" means the volume of metered and unmetered water used for municipal water supply purposes by consumers, the purveyor, and others authorized to do so by the purveyor, including, but not limited to, fire fighting and training, flushing of mains and sewers, street cleaning, and watering of parks and landscapes. These volumes may be billed or unbilled.

Method for calculating the Distribution System Leakage (DSL)

Calculating Percent DSL
To calculate percent DSL, use the following equation:

Percent DSL = [(TP - AC) / (TP)] x 100
Where:
DSL = Percent (%) of distribution system leakage
TP = Total water produced and purchased
AC = Authorized consumption

Calculating Volume DSL
To calculate volume DSL, use the following equation:

Volume DSL = TP - AC
Report volume DSL in millions of gallons or gallons

Total System Pumpage vs. Water Stewardship Strategic Plan Goals (source - City of Spokane Water Department)

WATER YEAR (Oct. through Sept.)	2008	2007	2006	2005	2004	2003	2002	2001
				pumpage (1,000 gallons)				
Total - Oct. (prev. yr.)through Mar.	6,551,023	7,161,742	6,884,687	6,305,328	6,743,044	6,095,091	6,703,595	6,498,805
Total - Apr. through Jun.	5,340,540	6,463,462	5,991,545	5,105,476	6,347,928	5,869,848	6,170,680	5,901,884
Total - Jul. through Sept.	9,277,452	9,936,735	10,451,223	9,695,077	8,737,566	9,596,914	9,125,815	9,967,904
Total - sum of seasonal totals	21,168,810	23,561,939	23,327,455	21,105,881	21,828,538	21,561,853	22,000,090	22,368,593
Goal - Oct. (prev. yr.) through Mar.	6,760,000	6,710,000	6,660,000					
Goal - Apr. through Jun.	6,870,000	6,850,000	6,830,000					
Goal - Jul. through Sept.	8,990,000	9,060,000	9,130,000					
Difference between Goal & Use as a percentage (positive value equal exceedance of goal)								
Result - Oct. (prev. yr.) through Mar.	-3.1%	6.7%	3.4%					
Result - Apr. through Jun.	-22.3%	-5.6%	-12.3%					
Result - Jul. through Sept.	3.2%	9.7%	14.5%					

Single Family Residences, total volume billed (entire service area) (Source - Utility Billing)

year	begindate	gallons (total)	no. of service locations	gal per service location	% change of service locations (Aug. & Sept.)
2001	Jan. & Feb.	737,689,236	52327	243	
2001	Aug. & Sept.	3,366,209,314	53456	1050	
2002	Jan. & Feb.	715,365,868	53572	230	
2002	Aug. & Sept.	3,220,431,185	54304	988	1.59%
2003	Jan. & Feb.	667,869,802	54940	210	
2003	Aug. & Sept.	3,704,900,330	55799	1107	2.75%
2004	Jan. & Feb.	748,304,094	56442	229	
2004	Aug. & Sept.	3,251,317,504	59042	918	5.81%
2005	Jan. & Feb.	605,279,543	57894	180	
2005	Aug. & Sept.	3,481,452,709	61178	948	3.62%
2006	Jan. & Feb.	718,319,925	59674	208	
2006	Aug. & Sept.	3,836,625,555	62248	1027	1.75%
2007	Jan. & Feb.	716,276,995	61068	202	
2007	Aug. & Sept.	3,611,246,760	62886	957	1.02%
2008	Jan. & Feb.	487,161,928	61065	135	
2008 *	Aug. & Sept.	3,209,282,032	63102	848	0.34%
			Avg. percent change of service locations (Aug. & Sept.) 2006-2007		1.38%

* heavy winter weather during Feb. 2008 resulted in estimating northside accounts at 12 units. Assessing the remaining meters for this period and relating to the next round of meter reading, this appears to be accurate.

Appendix II - Tests Run on City of Spokane Water 2-Feb-2009

FIELD TESTS

* Chlorine Demand
* Chlorine, Free Residual
Chlorine, Total Residual
Conductivity
Hardness
pH
Temperature
Turbidity

RADIONUCLIDES

* Alpha emitters (gross)
* Beta/photon emitters (gross)
Radon 222
* Radium 228

MICROBES

BACTERIA

Total Coliform - Before & After Treatment
Fecal Coliform - Before & After Treatment
Heterotrophic Plate Count - Raw water
* * * Aeromonas sp.

PROTOZOA

* Cryptosporidium
* Giardia
* Microscopic Particle Analysis

VIRUS

* Coliphage, Male Specific and -
* Somatic: EPA meth. 1601

GENERAL INORGANICS

* Asbestos
Color
Conductivity
1 Hardness, Calcium
1 Hardness, Magnesium
Hardness, Total
Total Alkalinity
Total Dissolved Solids
Turbidity
* UV254

INORGANIC IONS

Ammonia Nitrogen
* Bromide
Chloride
Cyanide
Fluoride
Nitrate Nitrogen
Nitrite Nitrogen
1 Phosphorus
Sulfate

INORGANIC METALS

Aluminum
Antimony
Arsenic
Barium
Beryllium
Cadmium
Calcium
Chromium
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Selenium
Silver
Sodium
Thallium
Zinc

VOLATILE ORGANICS

Benzene
benzene, 1,2,3-Trichloro-
benzene, 1,2,4-Trichloro-
benzene, 1,2,4-Trimethyl-
benzene, 1,3,5-Trimethyl-
benzene, Bromo-
benzene, Butyl-
benzene, Chloro-
benzene, Ethyl
benzene, Isopropyl-
benzene, m-Dichloro-
benzene, o-Dichloro-
benzene, p-Dichloro-
benzene, Propyl-
benzene, sec-Butyl-
benzene, tert-Butyl-
Butadiene, Hexachloro-
Chloride, Carbon Tetra-
Chloride, Methylene (aka methane, dichloro)
Chloride, Vinyl
ethane, 1,1,1,2-Tetrachloro-
ethane, 1,1,1-Trichloro-
ethane, 1,1,2,2-Tetrachloro-
ethane, 1,1,2-Trichloro-
ethane, 1,1-Dichloro-
ethane, 1,2-Dichloro-
ethane, Chloro-
ethene, 1,1-Dichloro-
ethene, cis-1,2-Dichloro-
ethene, Tetrachloro-
ethene, trans-1,2-Dichloro-
ethene, Trichloro-
methane, Bromo-
methane, Bromochloro-
methane, Chloro-
methane, Dibromo-
methane, Dichlorodifluoro-
methane, Trichlorofluoro- (Freon 11)
Naphthalene
2 propane, 1,2,3-Trichloro-
propane, 1,2-Dichloro-
propane, 1,3-Dichloro-
propane, 2,2-Dichloro-
propene, 1,1-Dichloro-
propene, cis-1,3-Dichloro-
propene, trans-1,3-Dichloro-
Styrene
Toluene
toluene, o-Chloro-
toluene, p-Chloro-
toluene, p-Isopropyl-
Xylene, m&p-
Xylene, o-
Xylene, total

* Tests were not run in 2008 but have been run in previous years.
1 - Typically run by the City's Wastewater Laboratory only
2 - conducted during 2002-2003 for the Unregulated Contaminant Monitoring Rule.

Appendix II (continued)
GENERAL ORGANICS

* Total Organic Carbon
* Total Organic Halides

Maximum Total Trihalomethane Potential (MTTP)

MTTP - Bromodichloromethane
MTTP - Bromoform
MTTP - Chloroform
MTTP - Dibromochloromethane
ether, Methyl tert-Butyl (MtBE)
2 Benzene, Nitro
2 toluene, 2,6-Dinitro-
2 DCPA Acid Mono-acid degradate
2 DCPA Acid Di-Acid degradate
2 Perchlorate
2 Acetochlor
Polybrominated Diphenyl ether (PBDE)
- (limited list of congeners)

DISINFECTION BY-PRODUCTS

TRIHALOMETHANES

Chloroform
Bromoform
methane, Dibromochloro-
methane, Bromodichloro-
Total Trihalomethanes

FIVE HALOACETIC ACIDS (HAA5)

acetic Acid, Monochloro-
acetic Acid, Dichloro-
acetic Acid, Trichloro-
acetic Acid, Monobromo-
acetic Acid, Dibromo-

OTHER DISINFECTION BY-PRODUCTS

acetic Acid, Bromochloro-
* Hydrate, Chloral
* nitrile, Bromochloroaceto-
* nitrile, Dibromoaceto-
* nitrile, Dichloroaceto-
* nitrile, Trichloroaceto-
* pictrin, Chloro-
* propanone, 1,1,1-Trichloro-
* propanone, 1,1-Dichloro-

SYNTHETIC ORGANICS

2-Chloronaphthalene
2-Methylnapthalene
4-bromophenyl phenyl ether
4-Chlorophenyl phenyl ether
5-Hydroxydicamba
Acenaphthene
Acenaphthylene
Acifluorfen
Adipate, Di-(2-ethylhexyl)
Alachlor
Aldicarb
Aldicarb Sulfone
Aldicarb Sulfoxide
Aldrin
Ametryn
Amtryne
Anthracene
Anthracene, Benz(a)-
Anthracene, Dibenz(a,h)-
Arochlor 1016
Arochlor 1221
Arochlor 1232
Arochlor 1242
Arochlor 1248
Arochlor 1254
Arochlor 1260
Atraton
Atrazine
Baygon
Benefin
Bentazon
benzene, Hexachloro-
benzoic acid, 3,5-Dichloro-
BHC (alpha)
BHC (beta)
BHC (delta)
Bromacil
Butachlor
Butylate
Caffeine
Carbaryl
Carboxin
Chloramben
Chlordane
Chlordane, alpha-
Chlordane, gamma-
Chlorpropham
Chrysene
Cyanazine
Cycloate
D, 2,4-
Dalapon
DB, 2,4-
DCPA (Dacthal)
DDD, 4,4-
DDE, 4,4-
DDT, 4,4-
Diazinon
Dibenzofuran
Dicamba
Dichlorprop
Dichlorvos
Dieldrin
Diesel (as straight alka chain)
Dimethoate
Dinoseb
Diphenylamine
Diquat
Disulfoton
Disulfoton sulfone
Disulfoton sulfoxide (A)
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endothall
Endrin
Endrin aldehyde
EPTC
Ethoprop
Ethylene Dibromide
Fenamiphos
Fenarimol
Fluoranthene
Fluoranthene, Benzo(b)
Fluoranthene, Benzo(k)
Fluorene
Fluridone
furan, 3-Hydroxycarbo-
furan, Carbo-
Glyphosate
Heptachlor
Heptachlor Epoxide
Heptachlor Epoxide "A"
Heptachlor Epoxide "B"
Hexachloroethane
Hexazinone
Hydrate, Chloral
Isodrin
Isophorone
Isopropalin
Isosafrole
Lindane
Malathion
Merphos
Methiocarb
Methomyl
Methoxychlor
Methyl paraoxon
Methylparathion
Metolachlor
Metribuzin
Mevinphos
MGK-264
Molinate
N-Nitrosodi-N-propylamine
Napropamide
Nonachlor, cis-
Nonachlor, trans-
Norflurazon
Oxadiazon
Oxamyl
Oxyfluorfen
Parathion
Pendamethalin
Pentachloronitrobenzene
pentadiene, Hexachlorocyclo-
Perylene, Benzo(g,h,i)
Phenanthrene
phenol, 2,4,6-Trichloro
phenol, 2,4-Dichloro
phenol, 4-Chloro-3-methyl
phenol, 4-Nitro-
phenol, Pentachloro-
phenyls, Polychlorinated Bi- (PCB, total Arochlor)
phthalate, Butylbenzyl-
phthalate, Di-(2-Ethylhexyl)-
phthalate, Di-n-Butyl-
phthalate, Diethyl
phthalate, Dimethyl-
Picloram
Profuralin
Prometon
Prometryn
Propachlor
propane, Dibromochloro- (DBCP)
Pyrene
pyrene, Benzo a-
Pyrene, Indeno(1,2,3,c,d)
Safrole
Simazine
T, 2,4,5-
Terbacil
Terbuphos
Thiobencarb
2 toluene, 2,4-Dinitro-
Toxaphene
TP, 2,4,5-
Trifluralin
Vernolate

* Tests were not run in 2008 but have been run in previous years.
1 - Typically run by the City's Wastewater Laboratory only
2 - conducted during 2002-2003 for the Unregulated Contaminant Monitoring Rule.

Appendix II (continued)

XENOBIOTICS (screening at Parkwater & Grace, 2008)

METHOD 1694: PHARMACEUTICALS AND PERSONAL CARE PRODUCTS BY HPLC/MS/MS

List 1
(Acid extraction, positive ESI)
Acetaminophen
Ampicillin 1
Azithromycin
Caffeine
Carbadox
Carbamazepine
Cefotaxime
Ciprofloxacin
Clarithromycin
Clinafloxacin
Cloxacillin
Codeine
Cotinine
Dehydronifedipine
Digoxigenin
Digoxin
Diltiazem
1,7-Dimethylxanthine
Diphenhydramine
Enrofloxacin
Erythromycin hydrate
Flumequine
Fluoxetine
Lincomycin
Lomefloxacin
Miconazole
Norfloxacin
Norgestimate
Ofloxacin
Ormetoprim
Oxacillin
Oxolinic acid
Penicillin G
Penicillin V
Roxithromycin
Sarafloxacin
Sulfachloropyridazine
Sulfadiazine
Sulfadimethoxine
Sulfamerazine
Sulfamethazine
Sulfamethizole
Sulfamethoxazole
Sulfanilamide
Sulfathiazole
Thiabendazole
Trimethoprim
Tylosin
Virginiamycin

List 2
(Tetracyclines, positive ESI)
Anhydrochlortetracycline (ACTC)
Anhydrotetracycline (ATC)
Chlortetracycline (CTC)
Demeclocycline
Doxycycline
4-Epianhydrochlortetracycline (EACTC)
4-Epianhydrotetracycline (EATC)
4-Epichlortetracycline (ECTC)
4-Epioxytetracycline (EOTC)
4-Epitetracycline (ETC)
Isochlortetracycline (ICTC)
Minocycline
Oxytetracycline (OTC)
Tetracycline (TC)

List 3
(Acid extraction, negative ESI)
Gemfibrozil
Ibuprofen
Naproxen
Triclocarban
Triclosan
Warfarin

List 4
(Base extraction, positive ESI)
Albuterol
Cimetidine
Metformin
Ranitidine

METHOD 1698: STERIODS AND HORMONES BY HRGC/HRMS

Native Analyte

Desogestrel
17a-Estradiol
Estrone
Androstenone
Androstenedione
Equilin
17b-Estradiol
Testosterone
Equilenin
Mestranol
Norethindrone
17a-Dihydroequilin-bis
Progesterone
17a-Ethynyl-Estradiol
Norgestrel
Estriol-tris
Coprostanol
Epicoprostanol
Cholesterol
Cholestanol
Desmosterol
Ergosterol
Campesterol
Stigmasterol
b-Sitosterol
b-Stigmastanol
b-Estradiol-3-Benzoate

* Tests were not run in 2008 but have been run in previous years.
1 - Typically run by the City's Wastewater Laboratory only
2 - conducted during 2002-2003 for the Unregulated Contaminant Monitoring Rule.

	Appendix III - Annual Testing Summary - Tests Run on City of Spokane Water						24-Feb-2009		
	2008 DRINKING WATER SOURCE - COMPLETED QUARTERLY MONITORING								
		SOURCE #	8	6	5	1	3	4	2
		WELL	CENTRAL	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY	WELL ELECTRIC
BACTERIA									
	COLIFORM - RAW SOURCE *								
	Total Coliform -number of samples per year / greatest result		7 / <1	7 / <1	4 / <1	7 / <1	12 / <1	9 / <1	36 / <1
	Fecal Coliform - number of samples per year / greatest result		7 / <1	7 / <1	4 / <1	7 / <1	12 / <1	9 / <1	36 / <1
	HETEROTROPHIC PLATE COUNT - RAW SOURCE *								
	number of samples per year / greatest result value		7 / 8	7 / 2	3 / 42.5	7 / 1	12 / 1	9 / 101	32 / 2
	* All operating wells are typically sampled once per month, as per hydraulic continuity commitment								
INORGANIC									
	FULL LIST- CERTIFIED LAB (phase II & V included)	3rd Qtr - Jul		completed-see App. IV	completed-see App. IV				
	NITRATE	1st Qtr - Jan						3.83	
		2nd Qtr - May						3.78	
		3rd Qtr - Jul	1.06	0.818	1.70	1.05	2.03	2.98	1.86
		4th Qtr - Oct						3.07	
	NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.72	
		2nd Qtr - May						3.70	
		3rd Qtr - Jul	0.892	0.676	1.80	0.902	1.76	2.46	1.61
		4th Qtr - Oct						3.00	
ORGANIC									
	MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL	3rd Qtr - Aug	< 0.5,3.22,< 0.5,0.83	< 0.5,7.82,1.75,2.98	< 0.5,4.01,1.06,1.68	< 0.5,5.19,1.48,2.54	< 0.5,4.13,1.06,1.62	0.59,5.29,2.37,2.93	< 0.5,4.35,0.96,1.51
	(Br,Cl,DiBr,DiCl)								
	VOLATILES	1st Qtr - Jan	no detections	no detections *		no detections			
	(including TRIHALOMETHANES)	2nd Qtr - May		no detections *					
		3rd Qtr - Jul		no detections *	no detections				
		4th Qtr - Oct							
	SYNTHETIC ORGANICS (515.1, 525.2, 531.1)	3rd Qtr - Jul	no detections	no detections	no detections				
		4th Qtr - Oct	no detections	no detections	no detections				
RADIOACTIVE CONTAMINANTS									
	Radon	2nd Qtr - Apr	534	winterized	winterized	426	534	503	402
		3rd Qtr - Jul	468	284	488	473	534	452	212
		4th Qtr - Oct		440	467				
	UNITS ARE AS REPORTED, ppb FOR ORGANICS, ppm FOR INORGANICS, except where noted.				* Grace was sampled each month, Jan. - Aug, and analyzed for VOC and NW TPH-Dx, re: Whitley Fire				

Appendix III - Annual Testing Summary - Tests Run on City of Spokane Water						24-Feb-2009		
2007 DRINKING WATER SOURCE - COMPLETED QUARTERLY MONITORING								
	SOURCE #	8	6	5	1	3	4	2
	WELL	CENTRAL	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY	WELL ELECTRIC
BACTERIA								
COLIFORM - RAW SOURCE *								
Total Coliform -number of samples per year / greatest result		11 / <1	8 / <1	7 / <1	11 / <1	15 / <1	9 / <1	31 / 2
Fecal Coliform - number of samples per year / greatest result		11 / <1	8 / <1	7 / <1	11 / <1	15 / <1	9 / <1	31 / <1
HETEROTROPHIC PLATE COUNT - RAW SOURCE *								
number of samples per year / greatest result value		11 / 4.5	8 / 5	7 / 84.5	11 / 1.5	15 / 2	9 / 347	31 / 1
* All operating wells are typically sampled once per month, as per hydraulic continuity commitment								
INORGANIC								
FULL LIST- CERTIFIED LAB (phase II & V included)	3rd Qtr - Jul	completed-see App. IV						completed-see App. IV
NITRATE	1st Qtr - Jan						3.87	
	2nd Qtr - May						3.01	
	3rd Qtr - Jul	1.00	0.95	1.27	0.98	1.07	2.14	1.37
	4th Qtr - Oct						3.62	
NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.56	
	2nd Qtr - May	1.11	1.02	1.65	1.07	1.23	3.47	1.58
	3rd Qtr - Jul						2.63	
	4th Qtr - Oct						3.22	
ORGANIC								
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL	3rd Qtr - Aug	< 0.5, 3.37, 0.52, 0.96	<0.5,4.81, 1.00, 1.94	, 0.5, 4.15, 0.80, 1.50	< 0.5, 3.59, 0.84, 1.62	< 0.5, 3.11, 0.68, 1.22	< 0.5, 5.24, 2.08, 3.20	< 0.5, 4.41, 0.77, 1.63
(Br,Cl,DiBr,DiCl)								
VOLATILES	1st Qtr - Jan							
(including TRIHALOMETHANES)	2nd Qtr - May							
	3rd Qtr - Jul		no detections					
	4th Qtr - Oct			no detections *				
VIRAL INVESTIGATION								
EPA meth. 1601 - Famp (p/a, Host: E. coli. 15597)	1st Qtr - Jan				absent			absent
EPA meth. 1601 - CN13 (p/a, Host: E. coli. 15597)	1st Qtr - Jan				absent			absent
RADIOACTIVE CONTAMINANTS								
Radium 228	2nd Qtr - Apr 24					0.63		
2 samplings more than 90 days apart	4th Qtr - Oct 30					1.41		
UNITS ARE AS REPORTED, ppb FOR ORGANICS, ppm FOR INORGANICS, except where noted.				* laboratory completed only part of VOC, resampled in 2008				

Appendix III - Annual Testing Summary - Tests Run on City of Spokane Water 24-Feb-2009

2006 DRINKING WATER SOURCE - COMPLETED QUARTERLY MONITORING

	SOURCE #	8	6	5	1	3	4	2
	WELL	CENTRAL	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY	WELL ELECTRIC
BACTERIA								
COLIFORM - RAW SOURCE (Fecal/Total)	1st Qtr - Jan	< 1 / < 1	not operating	not operating	< 1 / < 1	< 1 / < 1	< 1 / < 1	< 1 / < 1
Electric, Pkwtr, Ray - every qtr operating	2nd Qtr - May	< 1 / < 1	< 1 / < 1	not operating	< 1 / < 1	< 1 / < 1	< 1 / < 1	< 1 / < 1
other - once/yr	3rd Qtr - Jul	< 1 / < 1	< 1 / 39.7	< 1 / < 1	< 1 / < 1	< 1 / < 1	< 1 / < 1	< 1 / < 1
	4th Qtr - Oct	< 1 / < 1	not operating	not operating	< 1 / < 1	< 1 / < 1	< 1 / < 1	< 1 / < 1
HETEROTROPHIC PLATE COUNT - RAW SOURCE	1st Qtr - Jan	18	not operating	not operating	13	14	14	18
Electric, Pkwtr, Ray, Baxter - every qtr operating	2nd Qtr - May	4	1	not operating	2	4	8	2
other - once/yr, as early as possible	3rd Qtr - Jul	1	3	1	2	2	9	1
	4th Qtr - Oct	2	not operating	not operating	2	0.5	1	0.5
INORGANIC								
FULL LIST- CERTIFIED LAB (phase II & V included)	3rd Qtr - Jul				completed-see App. III			
NITRATE	1st Qtr - Jan						3.23	
	2nd Qtr - May						3.52	
	3rd Qtr - Jul	1.07	0.94	1.32	1.02	1.42	2.35	1.53
	4th Qtr - Oct						3.66	
NITRATE + NITRITE - RPWRF LAB Jan. 2006 / Mar. 2006	1st Qtr - Jan						4.19	
	2nd Qtr - May						3.62	
	3rd Qtr - Jul	1.35	1.06	1.52	1.25	1.65	2.91	1.77
	4th Qtr - Oct						3.93	
ORGANIC								
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL	3rd Qtr - Aug	< 0.5, 4.8, < 0.5, 0.9	< 0.5, 8.0, 1.2, 2.4	< 0.5, 6.1, 0.8, 1.4	< 0.5, 2.1, 0.9, 1.3	< 0.5, 6.6, 0.7, 1.4	0.9, 8.4, 2.3, 3.3	< 0.5, 7.5, 0.9, 1.6
(Br,Cl,DiBr,DiCl)								
VOLATILES	1st Qtr - Jan							
(including TRIHALOMETHANES)	2nd Qtr - May						no detections	
	3rd Qtr - Jul				no detections	no detections		no detections
	4th Qtr - Oct							
SYNTHETIC ORGANICS (515.1, 525.2, 531.1)	2nd Qtr - May				no detections			
	3rd Qtr - Jul				no detections	no detections	no detections	no detections
	4th Qtr - Oct					no detections	no detections	no detections *
VIRAL INVESTIGATION								
EPA meth. 1601 - Famp (p/a, Host: E. coli. 15597)	2nd Qtr - May		**present**		absent	absent		
(Grace sample pump failure-sample 8/15)	3rd Qtr - Jul		absent		absent	absent	absent	absent
	4th Qtr - Oct		absent					absent
EPA meth. 1601 - CN13 (p/a, Host: E. coli. 15597)	2nd Qtr - May		absent		absent	absent		
(Grace sample pump failure-sample 8/15)	3rd Qtr - Jul		absent		absent	absent	absent	absent
	4th Qtr - Oct		absent					absent

UNITS ARE AS REPORTED, ppb FOR ORGANICS, ppm FOR INORGANICS, except where noted.

* detection of dimethyl phthalate, 0.70 ppb - determined to be laboratory contaminant

Appendix IV - Drinking Water Inorganics Summary

CITY OF SPOKANE

reported 17-Feb-2009

DRINKING WATER INORGANICS SUMMARY

MOST RECENT WELL STATION MONITORING ANALYTICAL RESULTS

CERTIFIED LABORATORIES

								Maximum Contaminant Levels	Goals	CURRENT DATA SUMMARY			
WELL STATION	CENTRAL	ELECTRIC	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY	MCL's**	MCLG's	MEAN	MAX	MIN	COUNT
SAMPLING DATE	31-Jul-2007	31-Jul-2007	29-Jul-2008	29-Jul-2008	25-Jul-2006	25-Jul-2006	25-Jul-2006						
LABORATORY	Test Am (County	Test Am (County	County (SVL)	County (SVL)	County (NCA)	County (NCA)	County (NCA)						
ALKALINITY			87.5	139	100	148	148	unregulated		125	148	87.5	5
HARDNESS (as CaCO3)	134	138	91.4	154	116	166	172			139	172	91.4	7
CONDUCTIVITY (µmos/cm)	255	278	100	160	227	318	338	700 t		239	338	100	7
TURBIDITY (NTU)	0.153	0.117	< 1.0	< 1.0	0.150	0.150	0.140	1 t		0.10	0.153	0.117	7
COLOR (color units)	< 5.00	< 5.0	< 5.00	< 5.00	< 5.00	< 5.00	5.00	15 s		0.714	5.000	< 5.00	7
CHLORIDE	4.06	4.33	3.81	5.77	3.44	4.22	11.9	250 s		5.36	11.9	3.44	7
TOT. DISSOLVED SOLIDS	152	161	100	160	113	177	206	500 t		153	206	100	7
MAGNESIUM			8.01	16.9	9.77	16.8	13.7	unregulated		13.0	16.9	8.01	5
CALCIUM			23.4	33.9	27.1	35.7	42.1	unregulated		32.4	42.1	23.4	5
ORTHO-PHOSPHATE			< 0.01	< 0.01	< 0.010	< 0.010	0.0203	unregulated		0.004	0.0203	< 0.010	5
AMMONIA			0.036	< 0.030	0.784	0.560	1.010	unregulated		0.478	1.010	0.036	5
CYANIDE	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	0.2	0.2		< 0.0100	< 0.00500	7
FLUORIDE	< 0.100	< 0.100	0.151	< 0.100	< 0.100	< 0.100	< 0.100	2 s	4		0.151	< 0.100	7
NITRATE (NO3-N)	1.00	1.37	0.83	1.70	1.02	1.42	2.35	10	10	1	2.35	0.83	7
NITRITE (NO2-N)	< 0.200	< 0.200	< 0.050	< 0.050	< 0.200	< 0.200	< 0.200	1	1		< 0.200	< 0.200	7
SULPHATE	12.07	11.2	7.83	14.8	9.44	16.0	12.8	250 s	400	12.0	16.0	7.8	7
ALUMINUM			< 0.080	< 0.080	< 0.020	< 0.020	< 0.020	s - 0.05 - 0.2 mg/L * *			< 0.080	< 0.020	5
ANTIMONY	< 0.00100	< 0.00100	< 0.00300	< 0.00300	< 0.001	< 0.001	< 0.001	0.006	0.006		< 0.00300	< 0.001	7
ARSENIC	0.00358	0.00492	0.00310	0.00299	0.00219	0.00320	0.00435	0.010	0	0.0035	0.00492	< 0.0010	7
BARIUM	0.0247	0.0226	0.0167	0.0306	0.0196	0.0261	0.0424	2	2	0.0261	0.0424	0.0167	7
BERYLLIUM	< 0.000800	< 0.000800	< 0.00200	< 0.00200	< 0.0008	< 0.0008	< 0.0008	0.004	0.004		< 0.00200	< 0.0008	7
CADMIUM	< 0.00200	< 0.00200	< 0.000200	< 0.000200	< 0.002	< 0.002	< 0.002	0.005	0.005		< 0.002	< 0.000200	7
CHROMIUM	< 0.00850	< 0.00850	< 0.0060	< 0.0060	< 0.00850	< 0.00850	< 0.00850	0.1	0.1		< 0.00850	< 0.00850	7
COPPER	< 0.00745	< 0.00745	< 0.010	< 0.010	< 0.00745	< 0.00745	< 0.00745	TT	1.3		< 0.00745	< 0.00745	7
IRON	< 0.0200	< 0.0200	< 0.060	< 0.060	< 0.010	< 0.010	< 0.010	0.3 s			< 0.060	< 0.010	7
LEAD	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.001	< 0.001	< 0.001	TT	0		< 0.001	< 0.001	7
MANGANESE	< 0.0100	< 0.010	< 0.0040	< 0.0040	< 0.010	< 0.010	< 0.010	0.05 s			< 0.010	< 0.010	7
MERCURY	< 0.000200	< 0.000200	< 0.00020	< 0.00020	< 0.0004	< 0.0004	< 0.0004	0.002	0.002		< 0.0004	< 0.0002	7
NICKEL	< 0.0300	< 0.03000	< 0.010	< 0.010	< 0.030	< 0.030	< 0.030	0.1 * * *	0.1 * * *		< 0.030	< 0.030	7
SELENIUM	< 0.00500	< 0.00500	< 0.00300	< 0.00300	< 0.005	< 0.005	< 0.005	0.05	0.05		< 0.005	< 0.00100	7
SILVER	< 0.0100	< 0.0100	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.010	0.1 s			< 0.01	< 0.01	7
SODIUM	3.05	3.81	2.67	4.40	2.66	3.63	6.53			3.8	6.53	2.66	7
THALLIUM	< 0.000400	< 0.000400	< 0.00100	< 0.00100	< 0.0004	< 0.0004	< 0.0004	0.002	0.0005		< 0.00100	< 0.0004	7
ZINC	0.0159	< 0.0100	< 0.0100	< 0.0100	< 0.010	< 0.010	< 0.010	5 s			< 0.01	< 0.01	7

RESULTS ARE IN mg/L EXCEPT WHERE OTHERWISE NOTED

* TT = Treatment Technique; s = Secondary MCL; t = State only MCL

* * Aluminum is a secondary regulated contaminant, but is also on the Drinking Water Contaminant Candidate List

* * * The MCL and MCLG for Nickel were remanded on February 9, 1995, monitoring requirements still in effect

Appendix V - Disinfection Byproducts - Distribution System

Distribution System Sampling for Disinfection Byproducts

Reported 18-Feb-2009

Location	Mallen Tank	Mallen Tank	BPA Transmission Easement	BPA Transmission Easement	Mallen Tank	Mallen Tank	BPA Transmission Easement	BPA Transmission Easement	Mallen Tank	Mallen Tank	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	27-Jan-2004	26-Apr-2004	27-Jul-2004	27-Oct-2004	25-Jan-05	26-Apr-05	26-Jul-05	25-Oct-05	31-Jan-06	25-Apr-06	
Organics Lab	North Creek	North Creek	North Creek	North Creek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L	0.21	0.28	0.23	0.02	0.21	0.14	0.35	0.04	0.27	0.15	
TRIHALOMETHANES, results micrograms/L											
Chloroform	< 0.5	< 0.5	< 0.5	**1.2**	< 0.5	**0.5**	< 0.5	**0.7**	< 0.5	< 0.5	
Bromodichloromethane	**0.5**	< 0.5	< 0.5	**1.5**	**0.6**	**0.9**	< 0.5	**1.0**	< 0.5	< 0.5	
Dibromochloromethane	**0.6**	**0.5**	< 0.5	**1.3**	**0.6**	**0.9**	< 0.5	**1.5**	< 0.5	< 0.5	
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.8**	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	**1.1**	**0.5**	< 2.0	**4.0**	**1.2**	**2.3**	< 2.0	**4.0**	< 2.0	< 2.0	80
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6	< 6	< 6	< 6	60
Chloro,bromoacetic acid	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	

Results are in µg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	BPA Transmission Easement	BPA Transmission Easement	Mallen Tank	Mallen Tank	BPA Trans Easement	BPA Trans Easement	Mallen Tank	Mallen Tank	BPA Trans Easement	BPA Trans Easement	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	25-Jul-06	31-Oct-06	30-Jan-2007	24-Apr-2007	31-Jul-2007	30-Oct-2007	29-Jan-2008	29-Apr-2008	29-Jul-2008	21-Oct-2008	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L	0.29	0.23	0.19	0.23	0.31		0.20	0.24	0.23	0.19	
TRIHALOMETHANES, results micrograms/L											
Chloroform	< 0.5	**1.1**	< 0.5	**1.3**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Bromodichloromethane	< 0.5	**1.4**	**0.6**	**0.5**	< 0.5	**0.8**	< 0.5	< 0.5	< 0.5	**0.86**	
Dibromochloromethane	< 0.5	**1.2**	**0.8**	**0.7**	< 0.5	**1.1**	**0.63**	< 0.5	< 0.5	**1.03**	
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	< 2.0	**3.7**	**1.4**	**2.5**	< 0.5	**2.4**	**0.63**	< 0.5	< 0.5	**1.89**	80
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 6	< 6	< 6.0	< 6.0	< 6.0	< 6.0	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

--- Baxter was decommisioned during 2002. ---

BAXTER

WELL STATION								Reported	20-Mar-08					MAXIMUM CONTAMINANT LEVELS
DATE	30-Aug-89	12-Nov-91	28-Jul-92	06-Oct-92	27-Jul-93	26-Jul-94	25-Jul-95	25-Jul-95	30-Jul-96	19-Aug-97	27-Aug-97	21-Jul-98	18-Nov-98	25-Jul-2000	
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	Coffey	MWL	Laucks	Laucks	Laucks	Anatek	
Organics Note:															
Sampled by:	R. Butts		R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts		R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL															
Bromoform		1.4	0.6		0.8	< 0.5	0.7		< 0.5		0.35	< 0.5		0.6	
Chloroform		3.1	6.0		4.7	5.6	22.6		10.0		7.8	5.9		10.6	
Dibromochloromethane		2.7	2.4		1.4	1.5	0.7		< 0.5		2.6	0.8		1.9	
Bromodichloromethane		2.7	4.0		1.7	2.8	5.7		< 0.5		4.3	1.1		2.6	
TOTAL		9.9	13.0		9.0	10.0	29.7		10		15.05	7.8		15.7	none
TRIHALOMETHANES															
Bromoform	0.6		< 0.5	< 0.5				**0.7**				< 0.5			
Chloroform	3.0		< 0.5	< 0.5				**2.5**				< 0.5			
Dibromochloromethane	1.2		0.5	0.6				< 0.5				< 0.5			
Bromodichloromethane	1.1		< 0.5	0.5				**1.7**				< 0.5			
TOTAL TRIHALOMETHANES	5.9		0.5	1.1				**4.9**				< 0.5			100.0
VOLATILE ORGANICS															
1,1,1-Trichloroethane	< 0.5		< 0.5	< 0.5				< 0.5				< 0.5			200.0
Tetrachloroethene	< 0.5		< 0.5	< 0.5				< 0.5				< 0.5			5.0
1,3-Dichloropropane	< 0.5		< 0.5	< 0.5				< 0.5				< 0.5			none
SYNTHETIC ORGANICS															
Di (2-ethylhexyl) Adipate								< 0.6		< 0.6		< 1.3	< 1.3	< 1.3	400.0
Di (2-ethylhexyl) Phthalate								< 0.6		< 0.6		< 1.3	< 1.3	< 1.3	6.0
Di-n-Butylphthalate								< 1.3		< 0.6*		< 0.6	< 0.6	< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

WELL STATION **CENTRAL** Reported 20-Mar-08

DATE	07-Mar-88	25-Sep-89	15-Jan-90	09-Apr-90	13-Aug-90	29-Oct-90	24-Jul-91	12-Nov-91	11-Feb-92	04-May-92	28-Jul-92	28-Oct-92	27-Jan-93	27-Apr-93	27-Jul-93	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts		R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform								< 0.5			< 0.5					
Chloroform								1.6			10.2				2.7	
Dibromochloromethane								0.7			1.4				0.5	
Bromodichloromethane								1.0			3.5				0.7	
TOTAL								3.3			15.1				4.0	none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Chloroform	< 0.5	< 0.5	< 0.5	**1.0**	**1.4**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Dibromochloromethane	**0.6**	< 0.5	**0.6**	< 0.5	**0.7**	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Bromodichloromethane	< 0.5	< 0.5	< 0.5	**0.5**	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
TOTAL TRIHALOMETHANES	**0.6**	< 2.0	**0.6**	**1.5**	**2.7**	< 2.0	< 2.0	0.5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5	**0.7**	**0.8**	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		200
Tetrachloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		5
1,3-Dichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate																400
Di (2-ethylhexyl) Phthalate																6
Di-n-Butylphthalate																none

WELL STATION **CENTRAL** (CONTINUED)

DATE	26-Jul-94	10-Aug-94	31-Jan-95	25-Jul-95	25-Jul-95	14-May-96	30-Jul-96	06-May-97	19-Aug-97	27-Aug-97	05-May-98	27-Apr-99	03-Aug-99	25-Apr-00	31-Jul-01	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	IEL	IEL	IEL	IEL	Coffey	Coffey	Coffey	MWL	Laucks	Laucks	Laucks/Anatek	Anatek	County(NCA)	Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL											21-Jul-98					
Bromoform	< 0.5			< 0.5			< 0.5			0.6	< 0.5		< 0.5	< 0.5	< 0.5	
Chloroform	4.0			6.2			9.3			5.5	4.5		2.8	7.0	14.6	
Dibromochloromethane	0.8			< 0.5			< 0.5			0.6	< 0.5		0.5	0.9	< 0.5	
Bromodichloromethane	1.5			2.2			< 0.5			2.3	0.5		1.1	1.4	1.0	
TOTAL	6.3			8.4			9.3			9.0	5.0		4.4	9.3	15.6	none
TRIHALOMETHANES																
Bromoform		< 0.5			**0.9**	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		
Chloroform		**1.0**			**1.1**	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		
Dibromochloromethane		< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		
Bromodichloromethane		**0.8**			**1.0**	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		
TOTAL TRIHALOMETHANES		**1.8**			**3.0**	< 2.0		< 2.0			< 2.0	< 2.0		< 2.0		80
VOLATILE ORGANICS																
1,1,1-Trichloroethane		< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		200
Tetrachloroethene		< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		5
1,3-Dichloropropane		< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate			< 0.6					< 0.3	< 0.6			< 1.3	< 1.3			400
Di (2-ethylhexyl) Phthalate			< 0.6					< 1.2	< 0.6			< 1.3	< 1.3			6
Di-n-Butylphthalate			< 1.3						< 0.6*			< 0.4	< 0.4			none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

WELL STATION	CENTRAL					Reported	20-Mar-08	MAXIMUM CONTAMINANT LEVELS
DATE	13-Aug-02	29-Jul-03	27-Jul-04	2005	2006	31-Jul-07	29-Jul-08	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:								
Sampled by:	R. Butts	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				26-Jul-05	25-Jul-06	31-Jul-07	29-Jul-08	
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Chloroform	2.9	3.0	5.3	4.3	4.8	3.4	3.22	
Dibromochloromethane	0.5	0.5	0.6	0.6	< 0.5	0.5	< 0.5	
Bromodichloromethane	1.2	1.2	1.4	1.3	0.9	1.0	0.8	
TOTAL	4.6	4.7	7.3	6.2	5.7	4.9	4.05	none
TRIHALOMETHANES	January-02			01-Feb-05			29-Jan-08	
Bromoform	< 0.5			< 0.5			< 0.5	
Chloroform	< 0.5			< 0.5			< 0.5	
Dibromochloromethane	< 0.5			< 0.5			< 0.5	
Bromodichloromethane	< 0.5			< 0.5			< 0.5	
TOTAL TRIHALOMETHANES	< 2.0			< 2.0			< 2.0	80
VOLATILE ORGANICS				01-Feb-05			29-Jan-08	
1,1,1-Trichloroethane	< 0.5			< 0.5			< 0.5	200
Tetrachloroethene	< 0.5			< 0.5			< 0.5	5
1,3-Dichloropropane	< 0.5			< 0.5			< 0.5	none
SYNTHETIC ORGANICS	Aug.&Nov.			7/26 + 10/25			7/29 & 10/21	
Di (2-ethylhexyl) Adipate	< 1.3			< 1.3			< 1.3	400
Di (2-ethylhexyl) Phthalate	< 1.3			< 1.3			< 1.3	6
Di-n-Butylphthalate	< 0.4			< 0.4			< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

WELL STATION **GRACE** Reported 20-Mar-08

DATE	31-May-88	30-Aug-89	13-Aug-90	29-Oct-90	24-Jul-91	12-Nov-91	28-Jul-92	27-Jul-93	26-Jul-94	10-Aug-94	31-Jan-95	25-Jul-95	25-Jul-95	30-Jul-96	07-Aug-96	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	IEL	IEL	Coffey	Coffey Resample	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform						< 0.5	< 0.5		< 0.5			0.7		< 0.5		
Chloroform						4.8	12.8	9.3	6.0			22.9		11.0		
Dibromochloromethane						1.8	1.2	0.9	0.9			< 0.5		< 0.5		
Bromodichloromethane						2.6	3.2	2.2	2.0			4.0		< 0.5		
TOTAL						9.2	17.2	12.0	9.0			27.6		11.0		none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	
Chloroform	**0.7**	< 0.5	1.0	< 0.5	**0.5**	**1.5**	< 0.5	**0.6**		**0.9**			**0.8**		< 0.5	
Dibromochloromethane	**0.7**	**0.9**	**0.7**	**0.5**	< 0.5	**1.0**	< 0.5	**0.5**		< 0.5			< 0.5		< 0.5	
Bromodichloromethane	**0.5**	**0.7**	**0.8**	< 0.5	**0.5**	**1.0**	< 0.5	**0.5**		**1.0**			**0.8**		< 0.5	
TOTAL TRIHALOMETHANES	**1.9**	**1.6**	**2.5**	**0.5**	**1.0**	**3.5**	< 2.0	**1.6**		**1.9**			**1.6**		< 2.0	80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	200
Tetrachloroethene	**1.0**	**1.0**	**0.7**	**0.7**	**0.6**	**0.6**	**0.5**	< 0.5		< 0.5			**0.7**		< 0.5	5
1,3-Dichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	none
Trichlorofluoromethane (Freon 11)																
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate											< 0.6					400
Di (2-ethylhexyl) Phthalate											< 0.6					6
Di-n-Butylphthalate											< 1.3					none

WELL STATION **GRACE** (CONTINUED)

DATE	29-Jul-97	27-Aug-97	07-Oct-97	21-Jul-98	18-Aug-98	01-Sep-98	27-Oct-98	18-Nov-98	29-Jun-99	03-Aug-99	25-Apr-00	25-Jul-00	24-Oct-00	31-Jul-01	13-Aug-02	MAXIMUM CONTAMINANT LEVELS
Organics Lab	Laucks	Laucks	MWL	Laucks/MWL	MWL	Laucks	Laucks	Anatek	Laucks/NCA	County(NCA)	County(NCA)	County(NCA)	Anatek	Anatek	Anatek	
Organics Note:			Resample													
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform		0.4		< 0.5						< 0.5		< 0.5		< 0.5	< 0.5	
Chloroform		5.8		6.6						7.1		9.7		18.6	8.6	
Dibromochloromethane		1.7		< 0.5						0.8		1.2		< 0.5	3.6	
Bromodichloromethane		2.7		0.7						2.4		2.0		1.2	5.7	
TOTAL		10.6		7.3						10.4		12.9		19.8	19.0	none
TRIHALOMETHANES																
Bromoform	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
Chloroform	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
Dibromochloromethane	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
Bromodichloromethane	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
TOTAL TRIHALOMETHANES	< 2			< 2		< 2	< 2		< 2	< 2	< 2			< 2		80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		200
Tetrachloroethene	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		5
1,3-Dichloropropane	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		none
Trichlorofluoromethane (Freon 11)				**0.60**		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate			< 0.6	< 1.3	< 1.3			< 1.3	< 1.3			< 1.3	< 1.3		< 1.3	400
Di (2-ethylhexyl) Phthalate			< 0.6	< 1.3	< 1.3			< 1.3	< 1.3			< 1.3	< 1.3		< 1.3	6
Di-n-Butylphthalate			< 0.6	< 0.6	< 0.6			< 0.6	< 0.4			< 0.4	< 0.4		< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

GRACE

Reported 20-Mar-08

WELL STATION							MAXIMUM CONTAMINANT LEVELS
DATE	29-Jul-03	27-Jul-04	2005	2006	2007 *	2008 *	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:							
Sampled by:	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				25-Jul-06	31-Jul-07	29-Jul-08	
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Chloroform	5.4	8.3	5.8	8.0	4.81	3.22	
Dibromochloromethane	1.2	1.1	1.1	1.2	1.00	< 0.5	
Bromodichloromethane	2.6	2.3	2.2	2.4	1.94	0.8	
TOTAL	9.2	11.7	9.1	11.7	7.75	4.05	none
TRIHALOMETHANES					*	*	
Bromoform		< 0.5			< 0.5	< 0.5	
Chloroform		< 0.5			< 0.5	< 0.5	
Dibromochloromethane		< 0.5			< 0.5	< 0.5	
Bromodichloromethane		< 0.5			< 0.5	< 0.5	
TOTAL TRIHALOMETHANES		< 2			< 2	< 2	80
VOLATILE ORGANICS							
1,1,1-Trichloroethane		< 0.5			< 0.5	< 0.5	200
Tetrachloroethene		< 0.5			< 0.5	< 0.5	5
1,3-Dichloropropane		< 0.5			< 0.5	< 0.5	none
Trichlorofluoromethane (Freon 11)		< 0.5			< 0.5	< 0.5	
SYNTHETIC ORGANICS	Jul-03		7/26 + 10/25			7/29 & 10/21	
Di (2-ethylhexyl) Adipate	< 1.3		< 1.3			< 1.3	400
Di (2-ethylhexyl) Phthalate	< 1.3		< 1.3			< 1.3	6
Di-n-Butylphthalate	< 0.4		< 0.4			< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Following a fire on July 23, 2007 at a nearby fuel storage facility, monthly VOC and TPH-Dx monitoring was initiated at Grace and Nevada well station until Aug. 2008. There were no detections.

WELL STATION **HOFFMAN** Reported 20-Mar-08

DATE	31-May-88	30-Aug-89	12-Nov-91	28-Jul-92	27-Jul-93	15-Aug-94	25-Jul-95	25-Jul-95	30-Jul-96	19-Aug-97	27-Aug-97	21-Jul-98	18-Aug-98	01-Sep-98	27-Oct-98	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	IEL/WADOH	IEL	IEL	Coffey	MWL	Laucks	Laucks/MWL	MWL			
Organics Note:						SOC's by IEL for State										
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform			0.7	< 0.5	0.6	0.6		0.7	< 0.5		0.3	< 0.5				
Chloroform			18.7	15.4	4.6	6.3		18.4	11.0		9.2	17				
Dibromochloromethane			1.8	1.2	0.9	1.2		0.5	< 0.5		1.0	0.96				
Bromodichloromethane			2.7	3.1	1.1	1.6		4.5	< 0.5		2.1	1.5				
TOTAL			23.9	19.7	7.2	10.0		24.1	11.0		12.6	19.46				none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5		< 0.5			**0.8**					< 0.5		< 0.5	< 0.5	
Chloroform	**1.7**	< 0.5		**8.5**			**4.4**					**1.6**		**1.0**	**2.0**	
Dibromochloromethane	**0.9**	**0.8**		< 0.5			< 0.5					< 0.5		< 0.5	< 0.5	
Bromodichloromethane	< 0.5	**0.6**		< 0.5			**1.1**					< 0.5		< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	**2.6**	**1.4**		**8.5**			**6.3**					1.6		1.0	2.0	80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5		< 0.5			< 0.5					< 0.5		< 0.5	< 0.5	200
Tetrachloroethene	< 0.5	< 0.5		< 0.5			< 0.5					< 0.5		< 0.5	< 0.5	5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5			< 0.5					< 0.5		< 0.5	< 0.5	none
Trichlorofluoromethane (Freon 11)												**1.1**		< 0.5	< 0.5	
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate						< 0.6				< 0.6			< 1.3			400
Di (2-ethylhexyl) Phthalate						< 0.6				**0.7**			< 1.3			6
Di-n-Butylphthalate										< 0.6*			< 0.6			none

WELL STATION **HOFFMAN** (CONTINUED)

DATE	18-Nov-98	29-Jun-99	03-Aug-99	25-Jul-2000	24-Oct-2000	31-Jul-2001	13-Aug-02	29-Jul-2003	27-Jul-04	1-Sep-2004	26-Oct-2004	2005	2006	2007	2008	MAXIMUM CONTAMINANT LEVELS
Organics Lab	MWL	Laucks	County (NCA)	County (NCA)	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	Wisely	Cribbins	Cribbins	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL												26-Jul-05	25-Jul-06	31-Jul-07	04-Aug-08	
Bromoform			< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5	
Chloroform			4.9	9.1		18.5	4.8	5.9	7.0			7.7	6.1	4.15	4.01	
Dibromochloromethane			0.7	1.0		0.6	1.1	1.4	1.1			1.4	0.8	0.80	1.06	
Bromodichloromethane			1.6	1.6		1.0	2.1	2.8	2.0			2.8	1.4	1.50	1.68	
TOTAL			7.2	11.7		20.1	8.0	10.1	10.1			11.9	8.3	6.45	6.75	none
TRIHALOMETHANES												7/26 + 10/25		30-Oct-07	04-Aug-08	
Bromoform		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
Chloroform		**0.54**	**0.555**	**1.92**		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
Dibromochloromethane		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
Bromodichloromethane		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
TOTAL TRIHALOMETHANES		**0.54**	**0.56**	**1.92**		< 2.0			< 2.0		< 2.0	< 2.0		< 2.0	< 2.0	80
VOLATILE ORGANICS												7/26 + 10/25		30-Oct-07	04-Aug-08	
1,1,1-Trichloroethane		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	200
Tetrachloroethene		< 0.5	< 0.5	< 0.5		< 0.5			**3.09* * ***	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	5
1,3-Dichloropropane		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		resample 2008	< 0.5	none
Trichlorofluoromethane (Freon 11)		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		resample 2008	< 0.5	
Dichloromethane (Methylene Chloride, Freon 30)				**1.5 ****		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
SYNTHETIC ORGANICS												7/26 + 10/25			7/29 & 10/21	
Di (2-ethylhexyl) Adipate	< 1.3	< 1.3		< 1.3	< 1.3		< 1.3	< 1.3				< 1.3			< 1.3	400
Di (2-ethylhexyl) Phthalate	< 1.3	< 1.3		< 1.3	< 1.3		< 1.3	< 1.3				< 1.3			< 1.3	6
Di-n-Butylphthalate	< 0.6	< 0.4		< 0.4	< 0.4		< 0.4	< 0.4				< 0.4			< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

** Dichloromethane was detected. This is a common laboratory contaminant and the laboratory blank had over twice this concentration. WA Dept. of Health concurred with our assessment that the sample is assumed to have been contaminated

*** On routine maintenance of the production pump motor a commercial solvent was used on the date of sampling, with the sole ingredient being Perc.

The State Dept. of Health agreed with the Water Dept. that this excursion did not represent a legitimate characterization of drinking water. The solvent is no longer used and subsequent quarterly tests have had no detections.

NEVADA

WELL STATION										Reported	20-Mar-08					MAXIMUM CONTAMINANT LEVELS
DATE	7-Mar-1988	31-May-1988	12-Apr-1989	30-Aug-1989	15-Jan-1990	9-Apr-1990	13-Aug-1990	29-Oct-1990	24-Jul-1991	12-Nov-1991	11-Feb-1992	4-May-1992	28-Jul-1992	28-Oct-1992	16-Feb-1993	
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	
Organics Note:															Resample	
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform										< 0.5			< 0.5			
Chloroform										7.6			4.1			
Dibromochloromethane										1.3			1.2			
Bromodichloromethane										2.7			2.2			
TOTAL										11.6			7.5			none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**< 0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Chloroform	< 0.5	**0.5**	**< 0.5**	< 0.5	**0.7**	**0.70**	**0.6**	0.5	< 0.5	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Dibromochloromethane	**< 0.5**	**0.8**	0.6	**0.8**	**0.9**	0.6	**0.5**	< 0.5	< 0.5	**0.7**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Bromodichloromethane	**< 0.5**	**0.6**	< 0.5	**0.5**	**0.7**	**0.60**	< 0.5	< 0.5	**0.5**	**0.7**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	**< 2.0**	**1.9**	**0.60**	**1.3**	**2.3**	**1.90**	**1.1**	**0.5**	**0.5**	**2.0**	**< 2.0**	< 2.0	**< 2.0**	**< 2.0**	< 2.0	80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5	< 0.5	< 0.5	**0.5**	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	200.0
Tetrachloroethene	**0.6**	**1.0**	**1.1**	**0.8**	**1.1**	**1.0**	**0.6**	**0.7**	< 0.5	**0.7**	< 0.5	< 0.5	< 0.5	**0.6**	**0.6**	5.0
1,3-Dichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate																400.0
Di (2-ethylhexyl) Phthalate																6.0
Di-n-Butylphthalate																none

NEVADA (CONTINUED)

WELL STATION																MAXIMUM CONTAMINANT LEVELS
DATE	27-Apr-1993	27-Jul-1993	26-Jul-1994	10-Aug-1994	31-Jan-1995	25-Jul-1995	25-Jul-1995	14-May-1996	30-Jul-1996	6-May-1997	19-Aug-1997	27-Aug-1997	28-Apr-1998	1-Sep-1998	27-Apr-99	
Organics Lab	WADOH	WADOH	WADOH	IEL	IEL	IEL	IEL	Coffey	Coffey	Coffey	MWL	Laucks	Laucks	Laucks	Laucks/Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL														07/21/98		
Bromoform			< 0.5			< 0.5			< 0.5			0.5		< 0.5		
Chloroform		7.6	4.9			19.0			9.0			4.7		5.5		
Dibromochloromethane		0.9	0.8			< 0.5			< 0.5			1.7		< 0.5		
Bromodichloromethane		2.0	1.8			3.9			< 0.5			2.6		0.7		
TOTAL		11.0	8.0			22.9			9.0			9.5		6.18		none
TRIHALOMETHANES																
Bromoform	< 0.5			< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	
Chloroform	< 0.5			**1.50**			**0.80**	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	
Dibromochloromethane	< 0.5			< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	
Bromodichloromethane	< 0.5			**1.00**			**0.80**	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	< 2.0			**2.50**			**1.60**	< 2		< 2						80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5			< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	200.0
Tetrachloroethene	**0.5**			< 0.5			**0.5**	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	5.0
1,3-Dichloropropane	< 0.5			< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate					< 0.6					< 0.4	< 0.6				< 1.3	400.0
Di (2-ethylhexyl) Phthalate					< 0.6					< 1.8	< 0.6				< 1.3	6.0
Di-n-Butylphthalate					< 1.3						< 0.6*				< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

WELL STATION **NEVADA** (CONTINUED) Reported 20-Mar-08

										MAXIMUM CONTAMINANT LEVELS
DATE	2000	2001	2002	2003	2004	2005	2006	2007 *	2008 *	
Organics Lab	County (NCA)	County (NCA)	County (NCA)	Anatek	03-Jan-00	Anatek	Anatek	Anatek	Anatek	
Organics Note:										
Sampled by:				Cribbins	Woodfill	Woodfill	Casci	Graf/Rickard	Graf/Rickard	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				29-Jul-03	27-Jul-04		25-Jul-06	31-Jul-07	29-Jul-08	
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Chloroform	9.7	1.4	5.5	6.0	7.8	8.5	2.1	3.59	5.19	
Dibromochloromethane	1.2	< 0.5	1.6	1.2	1.0	1.8	0.9	0.84	1.48	
Bromodichloromethane	2.0	0.5	2.9	2.4	2.0	2.8	1.3	1.62	2.54	
TOTAL	10.8	1.9	10.0	9.6	10.8	13.1	4.3	6.05	9.21	none
TRIHALOMETHANES				06-May-03			25-Apr-06	*	*	
Bromoform	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5	
Chloroform	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5	
Dibromochloromethane	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5	
Bromodichloromethane	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	< 2.0			< 2.0			< 2.0	< 2.0	< 2.0	80
VOLATILE ORGANICS	25-Apr-00			06-May-03			25-Apr-06	*	*	
1,1,1-Trichloroethane	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5	200.0
Tetrachloroethene	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5	5.0
1,3-Dichloropropane	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5	none
SYNTHETIC ORGANICS				4/29 & 7/29			4/25 + 7/25			
Di (2-ethylhexyl) Adipate				< 1.3			< 1.3			400.0
Di (2-ethylhexyl) Phthalate				< 1.3			< 1.3			6.0
Di-n-Butylphthalate				< 0.4			< 0.4			none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Following a fire on July 23, 2007 at a nearby fuel storage facility, monthly VOC and TPH-Dx monitoring was initiated at Grace and Nevada well station until Aug. 2008. There were no detections.

WELL STATION **PARKWATER** Reported 20-Mar-08

DATE	07-Mar-88	30-Aug-89	12-Nov-91	28-Jul-92	06-Oct-92	27-Jan-93	27-Apr-93	27-Jul-93	25-Jan-94	26-Apr-94	26-Jul-94	26-Jul-94	01-Nov-94	25-Jul-95	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	WADOH	IEL	IEL	IEL	
Organics Note:															
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL															
Bromoform			< 0.5	< 0.5							< 0.5			< 0.5	
Chloroform			4.4	2.6				3.4			4.6			28.1	
Dibromochloromethane			1.1	0.9				0.5			0.8			0.5	
Bromodichloromethane			2.0	1.5				0.8			1.6			5.4	
TOTAL			7.5	5.0				5.0			7.0			34.0	none
TRIHALOMETHANES															
Bromoform	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							
Chloroform	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							
Dibromochloromethane	< 0.5	**0.6**		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							
Bromodichloromethane	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							
TOTAL TRIHALOMETHANES	< 2.0	**0.6**		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0							80
VOLATILE ORGANICS															
1,1,1-Trichloroethane	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							200
Tetrachloroethene	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5							5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							none
SYNTHETIC ORGANICS															
Di (2-ethylhexyl) Adipate									< 0.2	**2.1**		< 0.6	< 0.6		400
Di (2-ethylhexyl) Phthalate									**0.3**	**0.2**		< 0.6	< 0.6		6
Di-n-Butylphthalate															none

WELL STATION **PARKWATER** (CONTINUED)

DATE	30-Jul-1996	7-Aug-1996	6-May-1997	19-Aug-1997	27-Aug-1997	3-Aug-1999	22-Dec-1999	25-Jul-2000	31-Jul-2001	13-Aug-02	29-Jul-2003	27-Jul-04	2005	2006	31-Jul-07	MAXIMUM CONTAMINANT LEVELS
Organics Lab	Coffey	Coffey	Coffey	MWL	Laucks	NCA/Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:		Resample														
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform	< 0.5				0.4	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Chloroform	8.9				3.6	4.3		10.1	17.3	3.6	3.7	8.1	6.6	6.6	3.11	
Dibromochloromethane	< 0.5				1.1	0.7		1.0	< 0.5	0.7	0.6	0.8	1.0	0.7	0.68	
Bromodichloromethane	< 0.5				2.1	1.6		1.6	1.2	1.5	1.4	1.8	2.0	1.4	1.22	
TOTAL	8.9				7.2	6.6		12.7	18.5	5.8	5.7	10.7	9.6	8.8	5.01	none
TRIHALOMETHANES											6-May-2003			25-Apr-2006		
Bromoform		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		
Chloroform		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		
Dibromochloromethane		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		
Bromodichloromethane		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		
TOTAL TRIHALOMETHANES		< 2.0				< 2.0	< 2.0				< 2.0			< 2.0		80
VOLATILE ORGANICS														25-Apr-06		
1,1,1-Trichloroethane		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		200
Tetrachloroethene		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		5
1,3-Dichloropropane		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		none
SYNTHETIC ORGANICS						Aug & Oct 1999					Jul & Oct 2003			7/25 + 10/31		
Di (2-ethylhexyl) Adipate			< 0.25	< 0.6		< 1.3					< 1.3			< 1.3		400
Di (2-ethylhexyl) Phthalate			< 0.9	< 0.6		< 1.3					< 1.3			< 1.3		6
Di-n-Butylphthalate				< 0.6*		< 0.4					< 0.4			< 0.4		none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples, but also in the laboratory blank during this test round.

WELL STATION	PARKWATER	Reported	20-Mar-08	MAXIMUM CONTAMINANT LEVELS
DATE	2008			
Organics Lab	Anatek			
Organics Note:				
Sampled by:	Graf/Rickard			
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				
Bromoform	< 0.5			
Chloroform	4.13			
Dibromochloromethane	1.06			
Bromodichloromethane	1.62			
TOTAL	6.81			none
TRIHALOMETHANES				
Bromoform				
Chloroform				
Dibromochloromethane				
Bromodichloromethane				
TOTAL TRIHALOMETHANES				80
VOLATILE ORGANICS				
1,1,1-Trichloroethane				200
Tetrachloroethene				5
1,3-Dichloropropane				none
SYNTHETIC ORGANICS				
Di (2-ethylhexyl) Adipate				400
Di (2-ethylhexyl) Phthalate				6
Di-n-Butylphthalate				none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

WELL STATION **RAY** Reported 20-Mar-08

DATE	7-Mar-1988	30-Aug-1989	12-Nov-1991	28-Jul-1992	6-Oct-1992	27-Jan-1993	11-May-1993	27-Jul-1993	19-Oct-1993	25-Jan-1994	26-Apr-1994	26-Jul-1994	10-Aug-1994	1-Nov-1994	31-Jan-1995	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH RETAKE FOR 3/27/93	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	IEL	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform			1.9	0.7				0.8				< 0.5				
Chloroform			3.7	7.4				6.5				7.7				
Dibromochloromethane			2.8	2.9				2.7				2.7				
Bromodichloromethane			2.9	4.6				3.9				4.7				
TOTAL			11.3	15.6				14.0				15.0				none
TRIHALOMETHANES																
Bromoform	< 0.5	**1.0**		**0.5**	< 0.5	< 0.5	< 0.5	**0.7**	< 0.5	< 0.5	**1.0**		< 0.5	< 0.5	< 0.5	
Chloroform	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.7**	< 0.5	**0.5**		< 0.5	< 0.5	**0.8**	
Dibromochloromethane	**0.9**	**1.6**		**1.0**	**0.6**	**0.5**	**0.7**	**1.0**	**1.3**	< 0.5	**0.7**		< 0.5	**0.5**	**1.6**	
Bromodichloromethane	< 0.5	**0.8**		**0.6**	< 0.5	< 0.5	< 0.5	**0.6**	**0.9**	< 0.5	**1.3**		< 0.5	< 0.5	**1.4**	
TOTAL TRIHALOMETHANES	**0.9**	**3.4**		**2.1**	**0.6**	**0.5**	**0.7**	**2.3**	**2.9**	< 2.0	**3.5**		< 2.0	0.5	**3.8**	80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5		**0.6**	< 0.5	< 0.5	**0.5**	**1.2**	**1.0**	< 0.5	< 0.5		< 0.5	< 0.5	**2.2**	200
Tetrachloroethene	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate															< 0.6	400
Di (2-ethylhexyl) Phthalate															< 0.6	6
Di-n-Butylphthalate															< 1.3	none

WELL STATION **RAY** (CONTINUED)

DATE	2-May-1995	25-Jul-1995	25-Jul-1995	30-Jan-1996	30-Jul-1996	28-Jan-1997	6-May-1997	19-Aug-1997	27-Aug-1997	23-Mar-1998	26-Jan-1999	3-Aug-1999	26-Oct-1999	1-Feb-2000	25-Jul-2000	MAXIMUM CONTAMINANT LEVELS
Organics Lab	IEL	IEL	IEL	IEL	Coffey	Coffey	Coffey	MWL	Laucks	Laucks	Laucks	Anatek	Anatek	County(NCA)	Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	Roy Butts	Roy Butts	Roy Butts	Roy Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL										21-Jul-98						
Bromoform			0.8		< 0.5				1.2	1.1		< 0.5			1.3	
Chloroform			39.3		10.0				13.0	11.0		6.2			11.0	
Dibromochloromethane			1.1		< 0.5				5.3	3.1		2.0			3.4	
Bromodichloromethane			8.2		< 0.5				8.2	4.7		3.6			4.1	
TOTAL			49.4		10.0				27.7	19.9		11.8			19.8	none
TRIHALOMETHANES																
Bromoform	**1.2**	**1.0**		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		
Chloroform	< 0.5	**0.8**		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		
Dibromochloromethane	< 0.5	< 0.5		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		
Bromodichloromethane	**0.9**	**0.8**		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		
TOTAL TRIHALOMETHANES	**2.1**	**2.6**		< 2.0		< 2.0				< 2.0	< 2.0			< 2.0		80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	**1.6**	< 0.5		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		200
Tetrachloroethene	< 0.5	< 0.5		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate							< 0.3	< 0.6				< 1.3	< 1.3			400
Di (2-ethylhexyl) Phthalate							< 1.1	< 0.6				< 1.3	< 1.3			6
Di-n-Butylphthalate								< 0.6*				< 0.4	< 0.4			none

* Di-n-Butylphthalate was detected at very low levels in a number of samples, but also in the laboratory blank during this test round.

WELL STATION **RAY**

Reported 20-Mar-08

									MAXIMUM CONTAMINANT LEVELS
DATE	31-Jul-2001	13-Aug-02	29-Jul-2003	2004	2005	2006	2007	2008	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:									
Sampled by:	R. Butts	R. Butts	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				27-Jul-04	26-Jul-05	25-Jul-06	31-Jul-07	29-Jul-09	
Bromoform	< 0.5	< 0.5	< 0.5	0.8	< 0.5	0.9	< 0.5	0.59	
Chloroform	16.0	8.6	6.1	11.9	7.3	8.4	5.2	5.29	
Dibromochloromethane	1.0	3.6	2.1	2.5	2.3	2.3	2.1	2.37	
Bromodichloromethane	1.9	5.7	3.9	4.1	3.5	3.3	3.2	2.93	
TOTAL	18.9	19.0	12.1	19.3	13.1	14.9	10.5	11.2	none
TRIHALOMETHANES			28-Jan-2003			31-Jan-06			
Bromoform	< 0.5		< 0.5			< 0.5			
Chloroform	< 0.5		< 0.5			< 0.5			
Dibromochloromethane	< 0.5		< 0.5			< 0.5			
Bromodichloromethane	< 0.5		< 0.5			< 0.5			
TOTAL TRIHALOMETHANES	< 2.0		< 2.0			< 2.0			80
VOLATILE ORGANICS									
1,1,1-Trichloroethane	< 0.5		< 0.5			< 0.5			200
Tetrachloroethene	< 0.5		< 0.5			< 0.5			5
1,3-Dichloropropane	< 0.5		< 0.5			< 0.5			none
SYNTHETIC ORGANICS			Jul & Oct 2003			7/25 + 10/31			
Di (2-ethylhexyl) Adipate			< 1.3			< 1.3			400
Di (2-ethylhexyl) Phthalate			< 1.3			< 1.3			6
Di-n-Butylphthalate			< 0.4			< 0.4			none

MAXIMUM CONTAMINANT LEVELS
none
80
200
5
none
400
6
none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

WELL ELECTRIC

Reported 20-Mar-08

WELL STATION															MAXIMUM CONTAMINANT LEVELS
DATE	31-May-88	30-Aug-89	12-Nov-91	28-Jul-92	27-Jul-93	19-Oct-93	26-Jul-94	31-Jan-95	25-Jul-95	30-Jul-96	07-Aug-96	19-Aug-97	27-Aug-97	18-Aug-98	18-Nov-98	
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	Coffey	Coffey	MWL	Laucks	MWL	Anatek	
Organics Note:											Resample					
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL														21-Jul-98		
Bromoform			< 0.5	< 0.5			< 0.5		< 0.5	< 0.5			0.4	< 0.5		
Chloroform			11.8	11.1	4.2		6.2		15.0	10.0			5.0	6.6		
Dibromochloromethane			1.6	1.1	0.7		1.0		< 0.5	< 0.5			1.4	0.8		
Bromodichloromethane			3.7	3.0	1.3		2.3		3.2	< 0.5			2.3	1.3		
TOTAL			17.1	15.2	6.0		10.0		18.2	10.0			9.1	8.7		none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5		< 0.5		< 0.5					< 0.5					
Chloroform	**0.5**	**0.9**		< 0.5		< 0.5					< 0.5					
Dibromochloromethane	**0.8**	**0.7**		< 0.5		**0.7**					< 0.5					
Bromodichloromethane	**0.7**	**0.6**		< 0.5		**0.6**					< 0.5					
TOTAL TRIHALOMETHANES	**2.0**	**2.2**		< 2.0		**1.3**					< 2.0					80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5		< 0.5		< 0.5					< 0.5					200
Tetrachloroethene	< 0.5	< 0.5		< 0.5		< 0.5					< 0.5					5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5		< 0.5					< 0.5					none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate								< 0.6				< 0.6		< 1.3	< 1.3	400
Di (2-ethylhexyl) Phthalate								< 0.6				< 0.6		< 1.3	< 1.3	6
Di-n-Butylphthalate								< 1.3				< 0.6*		< 0.6	< 0.4	none

WELL ELECTRIC (CONTINUED)

WELL STATION													MAXIMUM CONTAMINANT LEVELS
DATE	03-Aug-99	26-Oct-99	22-Dec-99	25-Jul-00	31-Jul-01	13-Aug-02	29-Jul-2003	27-Jul-04	2005	2006	2007	2008	
Organics Lab	County (NCA)	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:													
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL									26-Jul-05	25-Jul-06	25-Jul-07	29-Jul-08	
Bromoform	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.9	< 0.5	< 0.5	
Chloroform	5.3			11.6	10.2	7.0	6.5	9.4	8.6	8.4	4.41	4.35	
Dibromochloromethane	0.8			1.1	< 0.5	1.2	1.0	1.0	1.0	2.3	0.77	0.96	
Bromodichloromethane	2.2			1.9	0.9	2.6	2.5	2.1	2.4	3.3	1.63	1.51	
TOTAL	8.3			14.6	11.1	10.8	10.0	12.5	12.0	14.9	6.81	6.82	none
TRIHALOMETHANES							6-May-2003			25-Jul-2006			
Bromoform	< 0.5		< 0.5				< 0.5			< 0.5			
Chloroform	< 0.5		< 0.5				< 0.5			< 0.5			
Dibromochloromethane	< 0.5		< 0.5				< 0.5			< 0.5			
Bromodichloromethane	< 0.5		< 0.5				< 0.5			< 0.5			
TOTAL TRIHALOMETHANES	< 2.0		< 2.0				< 2.0			< 2.0			80
VOLATILE ORGANICS													
1,1,1-Trichloroethane	< 0.5		< 0.5				< 0.5			< 0.5			200
Tetrachloroethene	< 0.5		< 0.5				< 0.5			< 0.5			5
1,3-Dichloropropane	< 0.5		< 0.5				< 0.5			< 0.5			none
SYNTHETIC ORGANICS							Jul 29 & Oct 21			Jul & Oct 2006			
Di (2-ethylhexyl) Adipate	< 1.3	< 1.3					< 1.3			< 1.3			400
Di (2-ethylhexyl) Phthalate	< 1.3	< 1.3					< 1.3			< 1.3			6
Di-n-Butylphthalate	< 0.4	< 0.4					< 0.4			< 0.4			none
Di-methyl Phthalate										**0.70 ****			non-regulated

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

* * detected in 10/31/2006 sampling. No detection in re-sample and considered to be a laboratory contamination.

Appendix VII - Information Collection Rule - Sampling Sites

Site # 1 - Raw Source Water from Parkwater Station	Raw water prior to any treatment or distribution
Site # 8 - Treated (chlorinated) Water sampled at the Parkwater Station	sampled at the source just following treatment by chlorination
Site # 9 - Treated (chlorinated) Water held to simulate residence time of Site #50 (1-2 hrs)	newly treated water held in a container to simulate a short residence time in the distribution system (similar to residence time at site # 50)
Site # 50 - Water sampled in distribution system - 1923 N. Waterworks Rd.	approximately 1-2 hour residence time in distribution system
Site # 51 - Water sampled in distribution system - Fire Stn. #3, 1713 N. Ash	approximately midway in the main distribution system
Site # 52 - Water sampled in distribution system - Fire Stn. #4, 8 S. Adams	approximately midway in the main distribution system
Site # 55 - Water sampled in distribution system - Jensen Distribution Services - Aero Road (West Plains area)	sample point to represent the extreme distance (longest residence time) of the distribution system

Appendix VII - Information Collection Rule - 1998 Sampling Results

SITE >		*# 01*		*# 08*		*# 09*		*# 50*		*# 51*		*# 52*		*# 55*	
TEST	*UNITS*	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.
UV-254	cm - 1	12	0.01	12	0.009										
NH3-	mg/L	12	< 0.3												
Bromide	mg/L	12	< 0.3												
Alkalinity	mg CaCO3/L	12	160	13	160	4	160	4	150	4	160	4	150	3	140
Calcium Hardness	mg CaCO3/L	12	110	13	95	4	94	4	95	4	92	4	90	3	88
Total Hardness	mg CaCO3/L	12	190	13	170	4	170	4	170	4	160	4	160	3	140
TOC	mg/L	12	< 0.7	11	< 0.7										
TOX	ug Cl-/L	4	< 50	5	51	4	< 50	4	< 50	4	< 50	4	< 50	3	< 50
Chloroform	ug/L			5	< 1.0	4	< 1.0	3	< 1.0	3	< 1.0	3	< 1.0	2	< 1.0
Trichloroacetonitrile	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Dichloroacetonitrole	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Bromodichloromethane	ug/L			4	< 1.0	3	< 1.0	3	< 1.0	3	< 1.0	3	< 1.0	2	1.5
1,1-Dichloro-2-propanone	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Chloropicrin	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Dibromochloromethane	ug/L			5	< 1.0	4	< 1.0	3	< 1.0	3	< 1.0	3	1.0	2	2.0
Bromochloroacetonitrile	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
1,1,1-Trichloro-2-propanone	ug/L			5	< 0.5	4	0.7	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Bromoform	ug/L			5	1.3	4	< 1.0	3	< 1.0	3	1.5	3	1.8	2	< 1.0
Dibromoacetonitrile	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Monochloroacetic Acid	ug/L			4	< 2.0	4	< 2.0	4	< 2.0	4	3.5	4	< 2.0	3	5.8
Monobromoacetic Acid	ug/L			4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	3	< 1.0
Dichloroacetic Acid	ug/L			4	< 1.0	4	1.2	4	< 1.0	4	< 1.0	4	< 1.0	3	< 1.0
Trichloroacetic Acid	ug/L			4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	3	< 1.0
Bromochloroacetic Acid	ug/L			4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	3	< 1.0
Dibromoacetic Acid	ug/L			4	< 1.0	4	< 1.0	4	1.0	4	< 1.0	4	< 1.0	3	< 1.0
Chloral Hydrate	ug/L			4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5	3	< 0.5

Appendix VIII - Unregulated Contaminant Monitoring Rule - Round 1 (UCMR 1)

List 1 Contaminants	2,4 - dinitrotoluene	EPTC	Nitrobenzene	Perchlorate
	2,6 - dinitrotoluene	Molinate	MtBE	Terbacil
	Acetochlor	4,4' - DDE	DCPA, mono & di acid degradate	
*List 2 Contaminants **	1,2-diphenylhydrazine	2-methyl-phenol	2,4-dichlorophenol	2,4-dinitrophenol
	2,4,6-trichlorophenol	Diazinon	Disulfoton	Diuron
	Fonofos	Linuron	Nitrobenzene	
	Prometon	Terbufos	Aeromonas spp. *	

List 1 Monitoring Sites Treated Source Water from All Well Stations

List 2 Monitoring Sites	MD - Fire Station #3 - 1713 W. Indiana	mid-point representation of the residual disinfectant in the distribution system
	LD - Shawnee Tank	monitoring point representative of the lowest residual disinfectant in the distribution system
	MR - Fairways Golf Course	the most distal point in the distribution system representing the maximum residence time in the distribution system

UCMR 1 - sampling results

	2002 - 3rd qtr	2002 - 4th qtr	2003 - 1st qtr		2003 - 2nd qtr			2003 - 3rd qtr			2003 - 4th qtr	
						5/1 TO 7/31 Vulnerable time **						
	AUG	NOV	JAN	FEB	APR	MAY	JUN	JULY	AUG	SEPT	OCT	DEC
List 1	2002	2002	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003
CENTRAL		no detection				no detection						
GRACE						no detection					no detection	
HOFFMAN								no detection				no detection
NEVADA						no detection					no detection	
PARKWATER		no detection				no detection						
RAY		no detection				no detection						
WELL ELECTRIC	no detection	no detection		no detection		no detection						
List 2 - Aeromonas spp. only *												
MD - FIRE STATION #3			< 0.2		< 0.2			< 0.2	< 0.2	< 0.2	< 0.2	
LD - SHAWNEE TANK			< 0.2		< 0.2			< 0.2	< 0.2	< 0.2	< 0.2	
MR - FAIRWAYS GOLF COURSE			< 0.2		< 0.2			< 0.2	< 0.2	< 0.2	< 0.2	

* The City of Spokane was selected to sample and test for the microbial contaminant only.

* * For much of the United States east of the Rocky Mountains, many studies have shown the season of greatest vulnerability for contaminant occurrence is the late-spring, early-summer runoff-recharge period. (EPA 815-R-99-007, Tech. Bkgrd Info for UCMR)

Appendix IX - Viral Investigation Reported 5-Feb-2007

WELL	Source water	Nevada	Parkwater	Grace	Nevada	Ray St.	Parkwater	Well Electric	Grace	Grace	Well Electric	Well Electric	Nevada
	DATE	3-May-2006	3-May-2006	3-May-2006	25-Jul-06	25-Jul-06	25-Jul-06	25-Jul-06	15-Aug-06	31-Oct-06	31-Oct-06	30-Jan-07	30-Jan-07
	TIME	9:30	8:45	9:15:00	8:35:00	9:15:00	10:40:00	10:00	10:30	10:20		10:15	8:40
WATER	ELEVA.(FT)	1880.8	1897.6	1879.4	1870.9	1878	1883.4	1893.1	1871.5	1875.1	1895.6	1883.9	1895.9
	GPM.WELL	10215	0	8650	3035	6700	6850	8750	8000	8030	8400	3880	8750
	GPM.FIELD	20215	0	8650	21700	11700	34000	8750	8000	8030	8400	3880	8750
FIELD													
	Cl.RES.F	-		-	0.24	0.3			0.2	0.21	0.36	0.20	
	COND.F	247	355	240	259	358	358	306	209	271	296	258	314
	pH.F	8.37	7.9	8.4	7.66	7.59	7.71	7.67	7.97	7.67	7.66	7.76	7.79
	TEMP(C).F	12.0	10.5	12.0	15.5	12.5	11	11.5	10.5	11	10.5	12.0	11.0
	TURB.F	0.21	0.1	0.11	0.22	0.15	0.42	0.19	0.27	0.21	0.13	0.11	0.17
	BACT.LAB	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD
	BBY	Casci	Casci	Casci	Casci	Casci	Casci	Casci	Casci	Casci	Casci	Graf	Graf
	COLIFORM, FECAL,Raw Source Water	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	COLIFORM, TOTAL, Raw Source Water	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3	1	< 1	< 1
	HETEROTROPHIC PLATE COUNT, Raw Source Water	1	1	1	2	9	2	1	0.5	0.5	1	1	1
Viral Investigation													
	EPA meth. 1601 - Famp (p/a, Host: E. coli 15597)	absent	absent	**present**	absent	absent	absent	absent	absent	absent	absent	absent	absent
	EPA meth. 1601 - CN13 (p/a, Host: E. coli 15597)	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent

CONTAMINANTS FOUND IN DRINKING WATER TESTING IN 2008

CITY OF SPOKANE, WATER & HYDROELECTRIC SERVICES

Data presented, if not from 2008, is from the most recent testing done in accordance with the regulations.

SOURCE WATER TESTING CONTAMINANT	Units	Highest Average	Detected Maximum	Detected min.	Number Positive Samples	Number of Samples	MCL	MCLG	MAJOR SOURCES
Arsenic	µg/L	**(a)**	**4.9**	**2.2**	**11**	**13**	**10**	**0**	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Nitrate	mg/L	**(a)**	**3.83**	**0.83**	**10**	**10**	**10**	**10**	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Combined radium (b) -- (Radium 226+228)	pCi/L	**1.02**	**1.41**	**0.07**	**15**	**16**	**5**	**0**	Decay of natural and man-made deposits.

DISTRIBUTION SYSTEM TESTING CONTAMINANT	Units	Highest Average	Detected Maximum	Detected min.	Number Positive Samples	Number of Samples	MCL	MCLG	MAJOR SOURCES
Disinfection Byproducts - TTHMs [Total Trihalomethanes]	µg/L	**1.39**	**1.89**	**0.63**	**3**	**4**	**80**	**0**	By-product of drinking water chlorination

		date sampled	90th Percentile (d)	Number of Sites exceeding AL	Number Positive Samples	Number of Samples			
Copper (c)	mg/L	**Summer 2006**	**0.099**	**0**	**50**	**50**	**TT, AL= 1.3**	**1.3**	Corrosion of household plumbing systems; Erosion of natural deposits: Leaching from wood preservatives
Lead (c)	µg/L	**Summer 2006**	**7.4**	**0**	**50**	**50**	**TT, AL= 15**	**0**	Corrosion of household plumbing systems; Erosion of natural deposits

Notes

(a) Compliance with MCL is determined by single sample results, so no average is use

(b) MCL for combined Radium 226 and Radium 228 is 5 pCi/L. Radium 228 monitored all sources in 2005, Parkwater only in 2007 .

(c) Faucet samples were from 'at risk' homes (those with lead service lines and those with copper pipes with lead solder joints).

(d) 90% of at-risk homes had this concentration, or less, of lead/copper.

Key to Table

AL = Action Level = The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow.
MCL = Maximum Contaminant Level = The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG = Maximum Contaminant Level Goal = The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
pCi/L = picocuries per liter (a measure of radioactivity)
µg/L = micrograms per Liter = parts per billion
mg/L =milligrams per Liter = parts per million
mrem/yr = millirems per year (a measure of radiation absorbed by the body)
TT = Treatment Technique = A required process intended to reduce the level of a contaminant in drinking water.
<= - less than or equal to